Roman Heavy Cavalry (1)

Cataphractarii & *Clibanarii*, 1st Century BC–5th Century AD

ANDREY NEGIN AND RAFFAELE D'AMATO

ILLUSTRATED BY ANDREY NEGIN

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Series editor Martin Windrow

The authors dedicate this book to their dear parents, whose sacrifices allowed them to study, and eventually to publish, in this field of history and archaeology.

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ROMAN HEAVY CAVALRY (1)

CATAPHRACTARII & CLIBANARII
1st CENTURY BC–5th CENTURY AD

INTRODUCTION

Modern scholars and students of the Roman Army have demonstrated a wide interest in both the equipment and the tactical employment of the armoured Roman heavy cavalryman or ‘cataphract’, since they have regarded him as the precursor of the armoured knights of the Middle Ages.

Funerary stele (gravestone) of the cataphracts Aurelius Saluda and Aurelius Regrethus of the regiment *Ala Nova Firma catafractaria*, *c*. AD 234−235, from Stuttgart-Bad Cannstatt. The inscription may be translated: 'To the Gods of the Afterworld. [For] the brothers Aurelius Saluda and Regrethus, once horsemen of the *Ala Nova Firma catafractaria,* their brother Aurelius Abdedathus had this made. ' These troopers were recruited in the Eastern provinces for the German campaigns of Severus Alexander (r. 222−235) and his successor Maximinus Thrax ('the Thracian' – r. 235−238). The same is true of another inscription, to a Mesopotamian soldier named Biribamus; both monuments were found in locations near the *Limes Germanicus.* (Baden-Württemberg Lapidarium; photo R. D'Amato, courtesy of the Museum)

Ancient written sources indicate that heavy armoured cavalry – the so-called *cataphracti* (Greek, *katáfraktoi*), *cataphractarii* (Gr., *katafraktárioi*), and *clibanarii* (Gr., *klibanárioi*) – were present on the battlefields of the ancient world from the Hellenistic period right up to Late Antiquity. (In this text we follow the different spellings – e.g. *catafractarii/cataphractarii* – found in various sources rather than trying to impose a single form.) The Roman Army was no exception; it also created units of *cataphractarii* and *clibanarii*, but such troops were initially a product of the Eastern world. The Romans had a well-documented tendency to employ foreign fighting men and adopt their military practices, and then to modify and improve their organization, equipment and tactics; this was an important factor in their long-continuing military successes. In their efforts to develop an effective cavalry the Romans employed a variety of categories and tactics, and one of the most enduring results was the creation of a heavy armoured cavalry.

Having relied primarily on legionary *pedites* during the Consular period, under the Early Empire the Romans began to experiment with light cavalry equipment and tactics, and finally created units of armoured cavalry quite similar to the Iranian models which they encountered. These gave birth to the most exotic cavalry units in the Roman Army, whose employment became much more diffuse during the 3rd century AD, especially in the wars against their Persian counterparts but also in the West. We can identify nine such units in the Roman Army during the 2nd to 3rd centuries, although these never mustered a very large number of men. However, in the Late Empire units of *cataphractarii* and *clibanarii* formed the crack regiments of the Roman Army, now providing at least half of its total cavalry force.

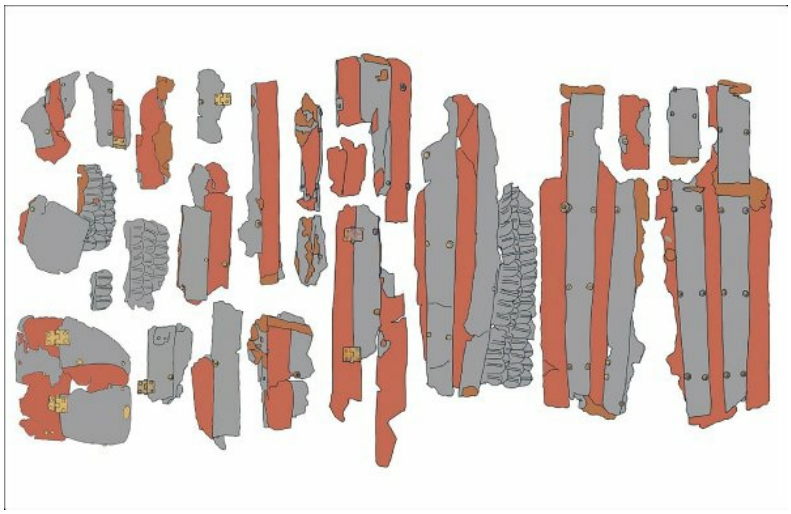
Romano-Egyptian elite heavy cavalryman, 31 BC, army of Marcus Antonius; detail from the ‘Bireme of Praeneste’ monument. (Musei Vaticani, Città del Vaticano; photo R. D’Amato, courtesy of the Museum)

CHRONOLOGY

31 BC	The army of Marcus Antonius includes units of heavy cavalrymen furnished by Cleopatra VII and other Eastern allies.
AD 69	Josephus mentions units of oriental-style armoured lancers in the army led by Titus against the Jewish rebels.
c. AD 110	The first regiments of *cataphractarii* are introduced into the Roman Army by the Emperor Trajan.
c. AD 115–120	Possible date of creation of the regiment *Ala I Gallorum et Pannoniorum catafractata*.
AD 175	The Iazyges people, from the steppes north of the Black Sea, make peace with Rome, on condition of providing 8,000 ‘hostage’ soldiers for service in its army. Of these, 5,500 are sent to serve in Britannia.
AD 227–235	Heavy armoured cavalrymen of

	Eastern origin serve in the armies of Emperors Severus Alexander and Maximinus Thrax on the Rhine frontier with Germany.
AD 234−235	Possible date of creation of the regiment *Ala Nova Firma catafractaria*.
AD 235	Osrhoenian amoured cavalry archers attempt to depose Maximinus by acclaiming as emperor the former consul Quartinus; he is later killed by the same archers' former commander.**1**
AD 312	At the battle of Turin the troops of Constantine the Great defeat Maxentius's picked *praesidium* formed by the *Vexillatio cataphractariorum* (*Pan. Lat.* XII, 6).
AD 337-361	During the reign of Constantius II the units of *cataphractarii* and *clibanarii* are favoured and strengthened.
c. AD 380−420	Large numbers of units of *cataphractarii* and c*libanarii* are

recorded in the official document known today as the *Notitia Dignitatum.*



Armour fragments from the Chatalka (Roshana Dragana) burial, Bulgaria, last quarter of 1st century AD. These are vertical iron plates joined with bronze rivets, apparently on a leather or thick fabric backing. This seems to have been a composite armour of plates with some scales; the degree of corrosion and fragmentation makes it difficult to reconstruct, but every second plate was originally painted red. (Drawings by Andrey Negin; Stara Zagora Museum)

Note

1 Osrhoene, capital Edessa, was an allied kingdom, later a province, on the Parthian border in the territory of today's south-east Turkey.

ORIGINS

Armed conflicts between the Romans and the Parthians and Sarmatians on their eastern borders provided a good reason for small temporary units *(numeri)* of heavy armoured cavalry to be introduced into the Roman Army by employment. The earliest recorded combats between Romans and opposing cataphracts took place at the battles of Magnesia (190 BC, against the Seleucids), Tigranocerta (69 BC, against the Armenians), and the famous disaster at Carrhae (53 BC, inflicted by the Parthians). The more or less constant threat from the Parthians in the 1st and 2nd centuries AD, and from the Sassanian Persians in the 3rd, consistently encouraged the Romans to acquire such troops for their armies by employment or alliance.

A EARLY ARMOURED CAVALRYMEN

(1) Romano-Egyptian heavily armoured cavalryman, 31 BC
This figure is copied from part of the famous monument to a senior naval officer of the time of Marcus Antonius, now in the Vatican museum, and from the Mausoleum of the Titeci near Lake Fucinus. He probably represents a member of the *kataphraktoi* of the Eastern allies of Cleopatra and M. Antonius, or perhaps even a member of their bodyguard. Note the helmet with wide cheek-guards partly protecting the face; the *thorax stadios* ('muscled' or anatomical) cuirass; the shield of *scutum* type, and the three javelins. Hidden here, his right arm would be covered with articulated 'hoop' armour.
(2) Romano-Thracian cataphract; Chatalka, c. AD 75−100
The armoured cavalryman from the Chatalka burial in Bulgaria may have worn what Arwidson calls 'belt armour' – a combination of iron plates, scales and splints in the Iranian tradition. The neck is protected by a thick iron gorget, following the Thracian–Macedonian style; it was made in two pieces connected by a strap,

and the outer surface was originally painted red. Surviving individual rings show that it was worn over a separate ringmail collar. Note his magnificent masked helmet (see reconstructions on **pages 8**-**9**). The Chatalka burial also included a beautiful sword of Chinese type.

Among the many types of *numeri* hired by the Roman Army, from the late 1st and early 2nd centuries particular emphasis was placed on the employment of units of cavalrymen called *contarii* (Greek, *kontarioi* – 'lancers'). Josephus (*BJ* III, 5, 5) mentions the long spear (*κοντὸς*) as one of the weapons of the Roman cavalry in AD 69. Whether or not Vespasian (r. AD 69−79) actually raised regular units of *contarii* cannot be determined, but the simultaneous adoption of mounted archers during his reign indicates that the Romans were beginning to experiment with new cavalry weapons and techniques – a process that came to fruition during the reigns of Trajan and Hadrian (rr. AD 98−138). From that generation onward heavy cavalrymen, sometimes completely armoured and occasionally with armoured horses, begin to be visible inside the Roman Army, especially in the units of *simmachoi* ('allies') or in the *numeri* recruited in the Eastern provinces. Through the enlistment of cavalry equipped with superior armour and weapons, and trained in novel tactics, the Roman Army added a further element to its versatile array of war-fighting assets.

Close-ups of both sides of one of the larger armour fragments from the Chatalka burial in ancient Thracia, approximately 30cm (11.8in) long. Based on analysis of the surviving fragments, we can assume that they had parallels in Sarmatian territory, and are an important indication of contact between a Romanized Thracian elite and the Sarmatian aristocracy. This armour may have been made at Panticapea, where we find a two-headed dog motif, as visible on a Roshava Dragana armour find. (Stara Zagora Museum, after Negin, 2016)

Helmet from the Chatalka burial, last quarter of 1st century AD. This beautiful Roman face-mask helmet shows interesting tube mountings riveted on the sides of the bowl above the ears of the mask, in the place where some Roman helmets have side tubes for single-feather plumes. (Stara Zagora Museum, after Negin, 2016)

Fragments of the gorget plate from the Chatalka burial, last quarter of 1st century AD; see under **Plate A2**. (Stara Zagora Museum, after Negin, 2016)

As early as AD 45 the vassal kingdom of Thracia was transformed into a Roman province, and the elite of the Thracian aristocracy provided Rome with a number of cavalry auxiliaries, some of them serving as heavy armoured lancers. A Thracian−Sarmatian nobility which was already strongly Hellenized quickly became the core of such *kontarii cataphractarii*, as shown by the wonderful grave finds from Chatalka in Bulgaria (Roshava Dragana, tumulus I, grave 2,784). There a Roman elite cavalryman of Thracian origin was buried with all his equipment, perhaps including that of the horse, in a period variably dated by archaeologists to between the last quarter of the 1st century AD and the first half of the 2nd century. The Chatalka tumulus and other archaeological finds raise the possibility that detachments of cataphracts may have served with the Roman Army from about AD 75.

Reconstruction of the helmet from the Romano-Thracian Chatalka burial. The mountings for tubes above the ears are too large and too horizontal to be for feather plumes; they are similar to tube mountings for horns on a Hellenistic helmet from Bryastovets. (Stara Zagora Museum, after Negin, 2016)

The Roman *contarii* or *κοντοφόροι* are mentioned by Arrian (*Tact.*, IV, 3) as carrying a particularly heavy lance (*kontós*) of Sarmatian origin, and were probably raised to counter the heavy cavalry of the Sarmatian Rhoxolani and Iazyges during the Dacian Wars at the turn of the 1st/2nd centuries. Their bodies, and many of their horses, were sometimes covered with scale, lamellar or mail armour.

Sarmatian cataphract, showing *spangenhelm,* scale body armour, and horse armour with pierced metal eye-protector; Trajan's Column, scene XXXI, early 2nd century AD. (Cast in Museum of Civiltà Romana; photo R. D'Amato, courtesy of the Museum)

UNITS

Source references: 1st century AD

The presence of oriental-style armoured lancers fighting among the Roman forces at Jotapata in the Jewish War of AD 69 is noted by Josephus (*BJ* III, 253): '… covered with armour on every side and with *kontoi* in their hands'. This is attested archaeologically by several large iron scales from Gamala on the Golan Heights. These heavy cavalrymen appear to reflect Parthian or European steppe traditions, and in all probability were provided by oriental rulers allied to the Romans, like those of Hatra. Easterners (especially Bosphorans from the northern coast of the Black Sea) were widely employed as heavy cavalrymen, 'armoured in iron' (Prop., *El.,* III, 12, 11, '*ferreus cataphractus*'). The best example of this is the tombstone of Thyphon, from Panticapea (Kerch, in north-east Crimea).

Hypothetical reconstructions of the equipment of a *decurio* (left) and a *praefectus* of an early *Ala cataphractata*, 2nd century AD. See modified reconstructions as **Plates B2** and **B3**. (Drawings by Andrea Salimbeti ex Gamber)

Graffiti from Dura Europos and Hatra, 2nd−3rd centuries. These two sites offer, in graffiti and paintings, the best representations of Roman or allied Hatrene-Palmyrene cataphracts, with horse-armour, shields, bows, and apparently masked helmets. (Drawings by Andrea Salimbeti ex Rostovtzeff and *Parthica*)

2nd century AD

Beside the Easterners, in the 2nd century AD cataphract units were often composed of the same Sarmatian tribesmen (Rhoxolani and Iazyges) as shown on Trajan's Column. Units of these heavy cavalrymen were enlisted in the army perhaps from the reign of Trajan (AD 98−117), but certainly under Hadrian (r. 117−138). According to Arrian (*Tact*., XLIV), Hadrian was the first to introduce cataphracts to the Roman Army. An inscription (CIL XI 5632) refers to the *Ala I Gallorum and Pannoniorum catafractata* operating in Moesia against the Sarmatians. J.W. Eaddie suggests that this regiment may have been formed by combining two existing *alae*, the *I Claudia Gallorum* and *I Pannoniorum*, which had been stationed in Moesia in AD 99 and 105 respectively but evidently disappeared thereafter.

The famous graffito of a *clibanarius* from Tower 17 at Dura Europos; see reconstruction as **Plate C3**. The 'belt-cuirass' of plates (in Arwidson's term) combined with scales and/or mail for this 3rd-century Roman or Palmyrene *clibanarius* was a typically oriental fashion adopted by the Roman Army; it fitted to the body well, while enabling considerable freedom of movement. (Drawing by Andrea Salimbeti ex Ghirsman)

That the troopers seem to have been recruited in Gallia and Pannonia indicates that from an early date these formations were not restricted to Persians or other orientals. Various diplomas were issued for this unit in

AD 125 (AE, 1997: 1772), 127 (AE, 1887: 1780; RMD 235, 241) and 134 (CIL XVI, 78). Under Hadrian it was commanded for a time between AD 120 and 130 by M. Maenius Agrippa, and subsequently by a certain Vettius or Tettius, who is mentioned in a diploma of 28 February AD 138 together with a trooper named Valerius. From then on references to the unit on diplomas are not infrequent (e.g. RMD 50, 165, 270, from AD 145−146 and 154), but it seems that its troopers remained essentially foreign, and were rarely, if ever, recruited as Roman citizens. However, under Antoninus Pius (r. AD 138−161) members of this regiment were granted *civitas* upon discharge (CIL III, Diploma XLIV from between AD 145 and 161, in Moesia Superior; and CIL XVI, 00110, from AD 159, in Dacia).

One or possibly two units of armoured cavalry are attested in Britain. A unit of Sarmatians was based at Ribchester (CIL VII, 218, 221), as part of a force of 5,500 sent to Britain in AD 175 following the defeat of their tribe in the Marcomannic War (SHA Marcus Aurelius 27). Probably not all of the 5,500 were cavalry, and the total may have included non-combatants. No other units of Sarmatians are definitely attested in Britain. The unit at Ribchester is described on inscriptions both as a *numerus* and an *ala*, and is probably the same one called a *cuneus* in the *Notitia Dignitatum* (OC. XL, 54) at the turn of the 4th/5th centuries. The tombstone of a Sarmatian *draconarius* found at Chester in 1890 (RI B. 550) may possibly suggest the presence of a second such unit. It shows a cavalryman in scale armour on a partially armoured horse, but unfortunately the inscription is almost entirely destroyed.

B EARLY UNITS, 2nd CENTURY AD

(1) Sarmatian cataphract; Adygeia, c. 110 AD
Archaeological finds at the Gorodoskoy farm site on the ancient Pontic steppes in Adygeia (Russian Federation) revealed the impressive armour of a true Sarmatian *cataphractus*, a prototype for the Roman armoured *contarius*. He wears a segmented iron *spangenhelm* with an attached scale aventail; the skull consists of four vertical pieces with the space between filled with horizontal strips, as depicted on Trajan's Column. The height of the occupant of the grave was about 1.7m (5ft 6in), and the superb ringmail coat was up to 1.5m long (4ft 11in). At the top it fastened with buckles to the scale aventail. At the bottom it was divided into two flaps, allowing the wearer to sit on a horse with ease; the flaps were wrapped around the legs like trousers, being fastened in this position above the knee and on the shins with wide ringmail strips. Because of the poor preservation of the recovered armour the length of the sleeves is not clear, but given the degree of easy movement that would be required to wield the swords and javelins found in such graves we assume that they ended at the elbows. He carries a long *spatha*-type sword, but his main weapon is the very long *contus sarmaticus*.
(2) *Decurio* of *Ala Prima Gallorum et Pannoniorum catafractata*, 2nd century AD

The reconstruction of this junior officer is based on the studies of Gamber. He proposes that the chamfron found at Newstead, Scotland, and other recovered fragments of leather horse armour decorated with rivets, give an idea of the appearance of the mounts used by the early Roman cataphracts. The decurion's personal armour is reconstructed from Pannonian gravestones and archaeological finds; the troopers also could wear decorated helmets like this Trajanic or Hadrianic example from Brza Palanka, and bronze *ocreae* (greaves). We have completed him with full-length 'hooped' articulated arm protection (the *galerus*), a cavalry *spatha* and the *contus.*

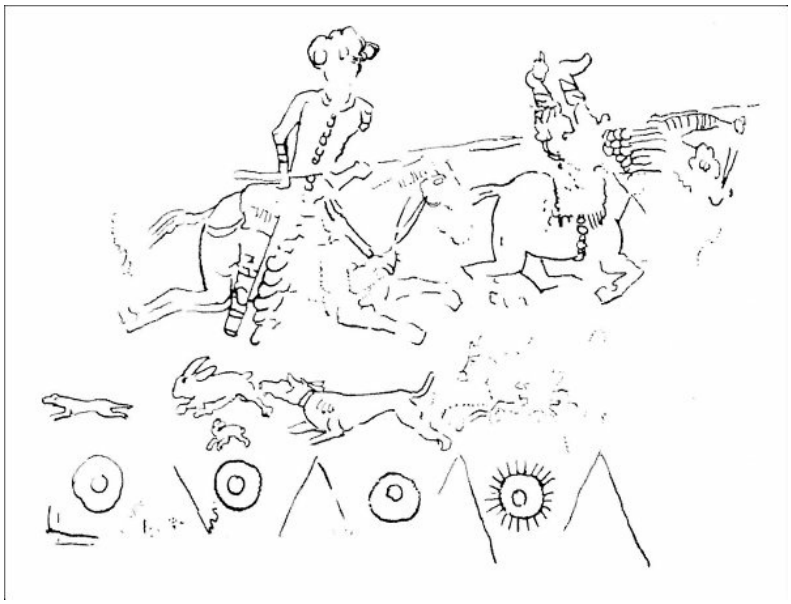
(3) *Praefectus* of an *Ala catafractata*, late 2nd century AD

This unit commander is largely reconstructed from the horseman *balteus* decoration from Trecenta in the Veneto region of north-east Italy. The officers of the cataphracts wore beautiful decorated helmets of Hellenic taste, here copied from an open-mask specimen ex-Axel Guttman collection (AG451). He is wearing a composite armour formed by a *thorax stadios* and *laminae* vertically disposed around the lower trunk, following the system of the Iranian 'belt armour', and copper-alloy greaves. Gamber proposes the mace as an officer's weapon, which may be confirmed by a specimen found in Dura Europos associated with cavalry finds, and by the fighting position of the cavalryman represented on the Trecenta *balteus* fitting. A regimental commander's horse equipment would be suitably magnificent; decorated pectoral protections with embossed figures, and partial bronze chamfrons with eye-protectors, have been found near Brescia, Turin, Vienna and in other localities.

3rd century AD

A new series of monuments and inscriptions relating to cataphracts appear during the reign of Septimius Severus (AD 193−211), and increase under his successors. The use of masked helmets on the Rhine frontier, and especially at Xanten, is well attested in the archaeology and has been linked with the presence of heavy cavalrymen. The Emperor Severus Alexander (r. AD 222−235) gathered numerous troops for a retaliatory campaign into Germania Magna against the Alamanni, and among these were many Easterners and especially Parthians (Herodian, *Hist*., VII). This emperor had employed captured equipment to fit out his own cavalry in the war against the Sassanians who seized power in Persia at the beginning of AD 227; he brought the recruited Parthian and Mesopotamian soldiers

to the banks of the Rhine, but he was assassinated before the offensive could be launched. His successor, Maximinus the Thracian (r. AD 235−238) led the punitive expedition successfully, though at the cost of serious losses.



Depiction of fight between Romans and Sassanians in fresco from House F at Dura Europos, AD 259−260. The horseman at the left, charging with a *contus* and unhorsing his adversary, has been identified by Prof Pagliaro as a Persian by an inscription in Pehlvi which appeared above his head: '. . . *yazatan hac cihr yattâv*' ('the Lord offspring of the Gods') – the style used by the Sassanian royal lineage. The armour of the unhorsed Roman resembles that of the *clibanarius* graffito, but he holds a short sword in his right hand and possibly a shield in his left. The girth visible below the fringed saddle-cloth is ornamented with metal discs. (Drawing by Andrea Salimbeti ex Rostovtzeff and Little)

During Maximinus' reign there is mention of the large regiment *Ala Nova Firma miliaria catafractaria*, which was recruited in the eastern provinces (Mesopotamia and Osrhoene) in 234, transferred to the West, and participated in campaigns against the Alamanni and Germans over the following two years. According to Herodian (VIII, 1, 3), Maximinus re-entered Italy with several *alae* of cataphracts (*αἰ τῶν καταφράκτων ἵππέων ἴλαι*), which fought in conjunction with Osrhoenian horse archers and Mauretanian mounted javelineers. The *Ala Nova Firma* remained in service at least during the reign of Philip the Arab (r. 244−249) – from whom it took its ultimate title *Philippiana* – and operated in Germania Superior, Pannonia Inferior, the Eastern provinces and Arabia.

The presence of cataphracts of Eastern origin alongside the light cavalry was an increasing phenomenon from the 3rd century AD, and is confirmed by rich evidence. That the cavalry became a more prominent part of the Roman Army during the 3rd century is well known. In around AD 260 a

second great invasion by Alamanni, described as on horseback, penetrated most of the Roman *limes* in the West, and led Gallienus (r. 260−268) to undertake widespread army reforms to create a highly mobile force which could match most of the tactics employed by Rome's enemies. From this time onward the cataphracts played an ever more important role; Kedrenos (I, p. 454) speaks of *Ippika Tagmata*, 'cavalry regiments'), and these were further increased under Aurelian (r. 270−275). The old legionary cavalry gradually disappeared, and an independent battle-cavalry arm gradually took over the inheritance of the legions in the field armies.

Statue of Roman cataphract, *c.* AD 298, at Aswan, Egypt; originally he would have been raising his arm to warn Nubian and Blemme enemies not to violate the borders of Roman Aegyptus. There is evidence for the presence of a heavy cavalry regiment, the *Ala Prima Iovia cataphractariorum*, established in the province under Diocletian's military reforms. The trooper's neck seems to be protected by an aventail falling from the absent helmet. Note that the scale armour is shown extending not only down to the wrist, but also covering the shins down to the top of the short boots, with some kind of 'gartered' effect just below the knees. This may represent armoured leggings, perhaps laced on behind the legs, anticipating the *chausses* of the Middle Ages. The loose waist belt has lion-mask fittings, and the sword slung from a baldric seems to be of Cologne typology. (Museum of Nubia, Aswan; photos R. D'Amato, courtesy of the Museum)

Rome's increasing strength in heavy cavalry units was certainly matched during the 3rd century by the aggressive Sassanian Persians, who repeatedly threatened the critical Syrian *limes*, and included in their army the super-heavy cavalrymen known by the Romans as *clibanarii*. The successful use of heavy cavalry against the Germans induced the Romans to recruit new units not only for confrontations with the Sassanians and Palmyrenes, but also to serve in Gallia against the Franks and Alamanni. The former importance of the infantry waned in favour of a fully armoured cavalry, which could move quickly to threatened borders and could be deployed against mounted enemies. Several inscriptions attest the following units in service during the late 3rd and 4th centuries:

Equites catafractarii Pictavenses (CIL 111, 14406a), recruited in Dacia and operating in Macedonia.

Equites catafractarii Ambianenses (CIL XIII, 3493, 3495), stationed in Belgica.

Several *numeri catafractariorum* (CIL V, 6784; XIII, 1848; XIII, 6238) operating in Gallia Cisalpina, Gallia Lugdunensis, and Germania Superior.

Detail from the stele of Valerius Maxantius, an *eques* of a *Numerus catafractariorum*, early 4th century AD, from Worms, Germany. He probably belonged to a unit formerly serving under Maxentius, and thus not fully trusted, which was sent north to fight the barbarians after Constantine's victory in the civil war; according to the inscription he died at the age of 32. Though much weathered, the gravestone seems to show him wearing scale armour and a *sagum* cloak, and equipped with a *contus*, a sword and a large circular shield; his horse is not armoured. (Museum der Stadt Worms, photo courtesy Dr Michael Bishop)

4th–5th centuries AD

The inscriptions also reveal that by this time such units of cataphracts were recruited from both Western and Eastern provinces, reducing the oriental monopoly in armoured heavy cavalry. (The terms 'Western' and 'Eastern' provinces are defined in the map which appears in the books MAA 506 & 511 – see inside back cover.) Some units served on always-strategic frontiers, such as those of Germania Superior and Moesia Inferior, while others were evidently stationed in provinces (e.g. Macedonia, Gallia Cisalpina) that were now considered critical due to the 3rd-century Germanic invasions which affected Gallia, Italia, Macedonia and Greece.

C FIRST HALF OF 3rd CENTURY AD

(1) Osrhoenian heavy cavalry *sagittarius*, army of Severus Alexander; Gallia, AD 235
According to Herodian, Severus Alexander had brought with him for his Rhine frontier campaign a large force of archers from the East including from Osrhoene, together with Parthian deserters and mercenaries. The horse-archers included heavy armoured units; shooting from well beyond the range of the Germans' weapons, they did great execution among their unarmoured adversaries. We have given this soldier some Roman equipment found in north German bogs, such as the mask helmet from Thorsbjerg and the ringmail shirt from Vimose, integrated with clothing and fittings from Parthian and Hatrene paintings. Iconography (e.g. synagogue painting from Dura), and graffiti suggest that the composite bow and a quiver would have been carried slung from the saddle behind the right leg, convenient for the right hand.
(2) *Cataphractarius* of *Ala Firma catafractaria*, army of

Maximinus Thrax; Germania, AD 235
Reconstructed from the stele of the Saluda brothers, he has rich equipment from the Rhine area: a Mainz-Heddernheim style helmet; bronze scale armour from Mainz; and highly decorated greaves embossed with a representation of the god Mars, from Speyer. His weapons and related fittings (*spatha*, baldric, *contus*) are copied from finds around Mainz, Nydam, and the Vimose bogs, where a lot of captured Roman equipment relating to the campaigns of Severus Alexander and Maximinus was found. The armour of his horse has been reconstructed from the lesser-known third trapper found in Dura Europos, made of copper-alloy scales, although the *prometopidion* (chamfron) is from Heddernheim. Under it the horse wears the equine harness from Nydam, including a brown leather muzzle with a bronze boss and fastened with bridle-chains to the rings of the bit.
(3) *Clibanarius* of a *Numerus Palmyrenorum*; Dura Europos, mid-3rd century AD
This 'super-heavy' cavalryman is reconstructed from the famous *clibanarius* graffito at Dura Europos (Tower 17). Note his conical mask helmet, and laminated armour covering torso, legs and arms. The limb defences consisted mainly of plates overlapping upwards, as required to throw off enemy spears running up the left arm, unprotected by a shield. Composite scale-and-plate armour similar to Iranian or Palmyrene models, as portrayed in the graffito, covers the trunk. Thigh protection was often associated with greaves, and was found at Dura made of copper alloy and lined with linen. His mount is stronger than the usual Arab breeds, and is protected by the iron-scale trapper – described in the text as number (2) – found at Dura.

These units multiplied in the Late Empire, when they were known as either c*ataphracti. cataphractarii* or c*libanarii* (see below, 'Designations'). Many were steadily added to the nine 3rd-century units which have been identified. Eastern and Western sources give several references to their employment under the Late Empire, and important details may be found in the works of Ammianus and other authors. Constantius II (r. 337–340) seems to have reorganized and increased the heavy cavalry units, and Libanios, in his oration (XVIII, 206), praises him for surpassing even the Persians in the provision of horse armour and protection for his cavalrymen. The *Notitia Dignitatum* – which is usually dated to about the 380s AD for the Eastern Empire and the 420s for the

West – reflects the situation following the military reforms of Diocletian (r. 285–305) and Constantine the Great (r. 306–337). This document (of which the earliest fully-illustrated copy of the lost original dates only from 1542) is both incomplete and difficult to interpret, but the continued importance of heavy cavalry is clear, particularly in the armies of the East. The Eastern *Scholae Palatinae* (Imperial Guard troops) included the following units:

The stele of Valerius Romanus, also of a *Numerus catafractariorum;* early 4th century AD, from Borbetomagus, Germania Superior. His clothing is clearer than on the previous monument: a helmet or cap, a long-sleeved tunic, a scale-armour corselet worn over a jerkin fitted with *pteryges*, and riding boots. He has a shield, and his pose suggests that he brandishes a heavy javelin *(verutum)* in his right hand. (Museum der Stadt Worms, photo courtesy Dr Michael Bishop)

Schola scutariorum prima
Schola scutariorum secunda
Schola gentilium seniorum
Schola scutariorum sagittariorum
Schola scutariorum clibanariorum

Schola armaturarum iuniorum
Schola gentilium iuniorum.

The units listed for the Western *Scholae Palatinae* were:
Schola scutariorum prima
Schola scutariorum secunda
Schola armaturarum seniorum
Schola gentilium seniorum
Schola scutatorium tertia.

Each of these two Imperial Guard forces was under the command of a *Magister Officiorum*, based respectively in Constantinople and Ravenna. All of them should be units of heavy cavalry, although some authors (e.g. Philip Barker) consider that in the West only the *Schola armaturarum seniorum* and *Schola gentilium seniorum* were heavily armoured.

Apart from these Guard units, heavy cavalry was represented among the *Comitatenses* of the field armies. We find in the East, under the Magister Militum Praesentalis I (ND Or. V, 29), the *Comites clibanarii* as a Vexillatio Palatina, and both the *Equites catafractarii Biturigenses* and the *Equites primi clibanarii Parthi* as Vexillationes Comitatenses (ND Or. V, 34, 40). Under the Magister Militum Praesentalis II, we find (ND Or. VI, 32) the *Equites Persae clibanarii* as a Vexillatio Palatina; the *Equites catafractarii*, *Equites catafractarii Ambianenses* (related to CIL, XIII, 3493 & 3495), and *Equites secundi clibanarii Parthi* are listed as Vexillationes Comitatenses (ND Or. VI, 35, 36, 40).

Also in the East, the Magister Militum per Orientem had under his authority as Vexillationes Comitatenses (ND Or. VII, 25, 31, 32, 34) the *Comites catafractarii Bucellarii iuniores*, *Equites promoti clibanarii*, *Equites quarti clibanarii Parthi* and the *Cuneus equitum secundum clibanariorum Palmirenorum*. Under the Magister Militum per Thracias in the Balkans, we find (ND Or. VIII, 29) the *Equites catafractarii Albigenses* as a Vexillatio Comitatensis. The army of the Dux Thebaidos included the *Ala Prima Iovia catafractariorum* (ND Or. XXXI, 52), stationed at Pampane; and that of the Dux Scythiae had a *Cuneus equitum catafractariorum* at Arubio (ND Or. XXXIX, 16). This last (if it was indeed the same unit) is also recorded by Ammianus (XXVIII, 5, 6 – *Cuneus equitum cataphractorum*) as operating in Gallia against the Saxons, under Valentinian I (r. 364–375): ‘The Romans … after suffering great losses … were routed and would have perished to a man, had not a troop of mail-clad horsemen (which had been similarly stationed on

another side, near a byway, to threaten the savages as they passed by) been aroused by their cries of terror, and quickly come to their aid …'

In total the Eastern army counted 14 units of heavy cavalrymen, and to these we should add the data from Egyptian papyri. A document dated January AD 300 refers to two *cataphractarii* serving in *Ala II Herculia dromedariorum* (P. Beatty, *Panop*. II, 28.). Papyrus CPRV 13 of 17 April AD 395 mentions an un-named *schola catafractariorum* based at Psoftis in Egypt. Other Egyptian units mentioned in the papyri are:
The 'Arsinoites', i.e. *Vexillatio equitum catafractariorum* stationed at Arsinoe (BGU, I, 316, of 12 October AD 359).
The 'Herakleopolites' (P. Vindobona Tandem 19, 5th–6th century AD).

Klibanarioi of unknown origin (PSI XIV 1426, 5th–6th century AD).
The *Leontoklibanarioi* (P. Amherst, II 148, AD 487).

Although now weathered, the details on this monument from Claudiopolis (Bolu, Turkey) were artistically carved on a smoothed slab in the first half of the 4th century; they show the rider in a hunting scene, with a dog and a barbed spear. The inscription reads: 'To the Gods of the Afterworld. [For] the *Ducenarius* Valerius Fuscianus, from Scadesiana, 50 years of age, with 25 years' service under commander *[praepositus]* Valens in the *Vexillatio equitum catafractariorum clibaniorum*; while he still lived his comrades [and] still-living father *Dux* Severianus had this made.' (Istanbul Archaeological Museum; photo R. D'Amato, courtesy of the Museum)

By contrast, in the West (apart from the above-mentioned *Cuneus equitum cataphractorum)*, we find only three field-army units mentioned in addition to the Scholae Palatinae of the Guard:
Clibanarii under the Magister Equitum Praesentalis (ND Oc. VI, 24).

'Passage of the Red Sea by the Army of Pharaoh'; Ipogeo di Dino Compagni, Via Latina catacombs, Rome, mid-4th century AD. Contemporary with the triumphal procession of Constantius II, these frescoes show the use of old styles of masked helmet with eagle *protomes*, such as the Vechten typology shown here (and see **page 28**), and of long-sleeved ringmail armours. (Photo courtesy of Pontificia Accademia)

Equites sagittarii clibanarii as a Vexillatio Comitatensis, still under that officer although stationed in Africa (ND Oc. VI, 67, VII, 185).
Equites catafractarii iuniores, having their barracks at Morbio in Britain (ND Oc. VII, 200; XL, 21 – possibly Piercebridge, Co Durham), under the Dux Britanniae. A horse eye-guard from Chester might be evidence for a cataphract unit at that site, but might equally be simply a piece of parade equipment from an ordinary cavalry unit. A number of long, slim-bladed spears have been identified as cavalry lances, but this is only conjectural.

However, we should also consider the tombstone of the c*entenarius* Klaudianus (CIL XIII, 1848) from Gallia, which may date from the 5th century, so we can perhaps add to the Western-based units his *Numerus equitum catafractariorum seniorum*, i.e. a *numerus* of irregulars – *catafractarii peregrini*. The *praenomen* of this officer seems to point to the reign of Honorius (r. 393–423) and his *cognomen* 'Ingenuus' means that he was not an ex-slave (*libertus*) but a Roman citizen. The stele came from Lyon (Lugdunum), where the unit may have been stationed at the disposal of the Magister Militum inter Gallias. Additionally, several regiments of Sarmatians and Alani (like the *Comites Alani*) fought in the West according to their old style, clad in heavy armour and helmet and armed with *contus*, sword and bow.

Even so, the relative concentration of this type of unit in the East, differing from the earlier pattern of distribution across the Empire, probably reflects a 4th-century response to the new challenges of Persian

cavalry, as suggested by J.W. Eaddie. It is also noteworthy that at the end of that century the *Notitia Dignitatum* lists three armament factories devoted to the production of equipment for *clibanarii*, and all are found in the East: at Antioch – (ND Or. XI, 22); at Caesarea in Cappadocia (ND Or. XI, 26); and at Nicomedia (ND Or. XI, 28). In the West there is only a factory *ballistaria et clibanaria* at Augustodunum (Autun, France – ND Occ. IX, 33).

Another scene of the same Old Testament episode from the mid 4th-century frescoes in the Via Latina catacombs. Here the helmets with eagle *protomes* seem to be of Heddernheim typology, and both muscled cuirasses and scale corselets are depicted. The internal surface of the shields is painted green. (Photo courtesy of Pontificia Accademia)

DESIGNATIONS

The terms *catafractus/catafracti/catafractarii* in various spellings, and *clibanarius/clibanarii*, referring to both Persian and Roman heavily armoured horsemen, appear in Roman sources recording events in the 3rd and 4th centuries AD, and it seems that the former term dates from the first half of the 3rd century (e.g. the *Ala Nova Firma milliaria catafractaria Philippiana*). However, the distinction between them is still a matter of scholarly debate (e.g. see D. Hoffmann, M. Mielczarek and M. Spiedel, Bibliography). Were *catafractarii* and *clibanarii* alternative names for the same type of heavy cavalry, or were they two distinct types with different equipment?

Sometimes the terms are used by ancient authors almost interchangeably (Naz., *Pan.,* XXII–XXIII; Amm. Marc., XVI, 10, 8). The Greek term *katafraktos* (*BJ*, V, 350) simply means ‘armoured’ (Veg., *Epit*., I, 20, from

the Greek κατάφραττειν, κατάφρασσειν, ‘to cover or enclose with armour’). By contrast, the term *clibanarius* comes from military slang (κλίβανον, ‘oven’), i.e. comparing a man encased in iron to the metallic body of a stove. In an inscription from Bithynia (AE 1984, 825) we find the unit designated *Vexillatio equitum cataphractariorum clibanariorum*, which seems to conflate the two terms. On the other hand, the inscriptions on Roman funerary monuments use *catafractarius* only for a Roman cavalryman belonging to a unit specifically of *catafractarii*.

The prevalent opinion is that the *cataphractus clibanarius* was a super-heavy cavalryman completely protected by a well-developed armour, often riding an armoured horse, and using a long lance. In the Late Empire the word *clibanarius* was perhaps used as a qualifier to identify this completely armoured type of *cataphractus*, while *equites cataphractarii* might be heavy cavalry who were not so completely armoured and rode unarmoured horses, as shown by their tombstone images (according to J.W. Eaddie and M.I. Rostovtzeff). In other words, all heavy armoured cavalry were *cataphractii* or *cataphractarii*, but only some specific units within that category were *clibanarii.* To complicate matters further, this distinction may not always have been used; the word *clibanarii* is very rarely employed after about AD 400, while the term *catafractii* remained in use until the end of the 5th century. In Egypt, the Greek technical term ιππεύς κατάφρακταριος was widely employed from the 4th century onwards to describe a heavy armoured horseman. The Midrash of the Late Roman Period (song *R* 19) calls the Roman heavy cavalryman *katafraktos*. To summarize, we may say that:

(1) The word *cataphractii* refers to all armoured heavy cavalrymen, who might or might not be *clibanarii.*

(2) The word *cataphractarii* refers to specific units, whose members might be heavily armoured and might ride armoured horses like the *clibanarii*, but might equally be heavy cavalrymen without full armour for the horseman or his mount.

(3) The word *clibanarii* refers only to super-heavily armoured cavalrymen riding armoured horses, using a wide range of weapons including the long lance and the bow, as adopted by the Roman Army from the Persian model.

ORGANIZATION

We have some evidence related to the internal organization of units of *cataphractarii* from epigraphic and literary sources, but mainly only from the 3rd century onwards. This is probably due to the fact that the earlier

units were employed Easterners or Sarmatians with their own organization. For example, Herodian describes the heavy horsemen of Severus Alexander thus: ‘subject peoples, others friends and allies, and included, too, were a number of Parthian mercenaries and slaves captured by the Romans.’ He refers (VII, 1) to the commander of the Osrhoenians by the generic term *igoumenos* rather than by a Roman rank.

D SECOND HALF OF 3rd CENTURY AD

(1) Roman *clibanarius*, Dura Europos, AD 256
Reconstructed after the finds from Dura, he and his mount are fully armoured in iron and bronze (copper alloy). The open-masked helmet of Heddernheim typology, whose fragments were found at Dura, is a very rare variant with double *protomes* in the form of eagles; it finds parallels only in a similar helmet formerly in the Axel Guttman collection, and on late Roman coins. The iron ringmail shirt shows rows of bronze rings trimming the ends of the sleeves and the skirt, and is worn in combination with an articulated arm-guard (*galerus*) of laminated iron plates. Each thigh is protected

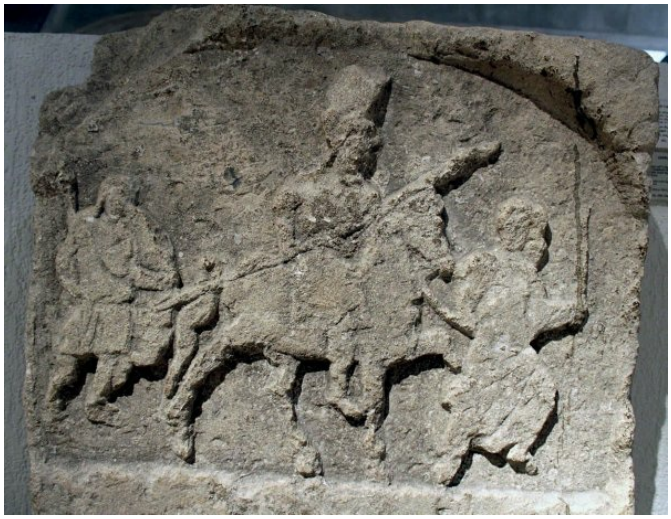
with a red-lacquered leather *παραμηρίδιος* (thigh-guard) as found in Dura; this had provision for laces to be fastened around the thigh, and extended from the waist to below the knee, below which the man wears bronze greaves. His main weapon is again the *contus*, this time carried without a shield, and for close work a mace is slung from the saddle.

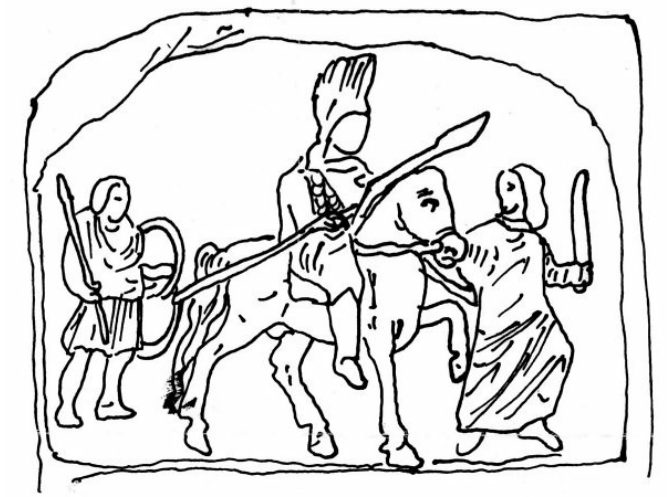
(2) *Draconarius* of an *Ala cataphractariorum*; army of Galerius, late 3nd century

This standard-bearer is reconstructed from the Arch of Galerius. The equipment of the *catafractarii* on this monument shows the employment of both 'ridge' and segmented helmets, typologically similar to specimens from Kipchak and Kabardino-Balkarie. The lamellar copper-alloy cuirass incorporates decorated iron plates fastening it on the chest, and is worn over a padded *thoracomacus* furnished with two layers of thick *pteryges*. Note the employment of high boots, the Egyptian-made tunic decorated with three sleeve stripes (*loroi*), and the military *sagum* cloak. His *draco* is copied from the Niederbieber specimen; the Arch of Galerius carvings represent this standard carried by cataphracts charging against the Persians.

(3) Roman *cataphractarius* of *Ala I Iovia cataphractaria*; Nubian borders, AD 295

Reconstruction from the Roman statue today in the Museum of Nubia at Aswan, which probably represents a trooper of this unit created by Diocletian (r. 284−305) and stationed to safeguard the provincial borders of Aegyptus. The *squamae* covering his body, arms and legs echo the armour of the Rhoxolani heavy cavalry depicted on Trajan's Column. The statue is headless; we have given him a *spangenhelm* from Egypt today preserved at Leiden Museum, correctly reconstructed here with the original nasal guard. The magnificent harness of his horse is taken from the Late Roman horse trappings of the Ballana graves, contemporary to the Dominate period.





The stele of Klaudianus [*sic*] Ingenuus, a *centenarius* of the *Numerus equitum catafractariorum seniorem*; 4th or 5th century AD, from Lugdunum, Gallia. Unfortunately, by the time this monument was discovered close to the River Saone in 1867 it had suffered severe water damage. However, some details are still discernible, including a 'ridge' helmet with a tall crest, scale armour and the long lance. The officer's servants carry a spear and oval shield and a sword. It is noteworthy that on all surviving stelae of *catafractarii* the deceased is depicted in scale armour, not simply in the uniform clothing usually shown on 3rd-century and later monuments. (Musée de la Civilisation Gallo-Romaine, Lyon; photo R. D'Amato, courtesy of the Museum; drawing by Andrea Salmbeti ex Esperandieu)

Under Hadrian, we find one of the earliest recorded instances of cataphracts within the Roman Army, with their commander designated as a *praefectus* (CIL xi. 5632 = ILS 2735, '*praefecto alae I Gallorum et Pannoniorum catafractatae'). This suggests the typical early Imperial cavalry organization, by which the units recruited in the *provinciae* had a strength of either 480 (*alae quingenariae*) or 960 men *(alae miliariae*), divided into a minimum of 16 and a maximum of 24 *turmae* (squadrons) each 30 strong, themselves divided into three 10-man *decuriae* (troops). In

the late 4th and the 5th century we often find the terms *cunei* and *numeri* to indicate sub-units of heavy cavalry, although *ala* is still used to designate a whole unit.

Analyzing the diplomas and the written documents of the *Ala II Gallorum et Pannoniorum catafractata* stationed at Gherla (in Dacia), we can hypothesize that the rank sequence in *Ala I catafractata* stationed in Moesia but also deployed to Dacia was identical:
Praefectus Alae (M. Maenius Agrippa, CIL, XI, 5632; Ala I)
Decurio (CIL III, 12542; Ala II)
Strator (AE, 1977, 704; Ala II)
Imaginifer (SCIV 19, 1968, 2; Ala II)
Signifer (AE, 93, 1329; Ala II)
Eques (AE, 1997, 1772; Ala I).

The presence of the rank of *decurio* in the *Equites cataphractarii Ambianenses* is attested by the stele of Valerius Zurdigenus (CIL, XIII, 3495), while another *decurio* originating from Mesopotamia (Biribamus, son of Abseus) is attested for the *Ala Firma catafractaria* in the second quarter of the 3rd century: 'In memory of Biribamus, son of Abseus, decurion in the *Ala Firma catafractaria,* fallen in war, native of the province of Mesopotamia, from Rac …' Decurions, while literally 'leaders of 10 men', are often mentioned in inscriptions as commanders of a whole *turma.* (As in so many armies throughout history, shortage of qualified manpower must have led to junior leaders shouldering responsibilities above their pay grade.)

One of the most important passages relating to the ranks of the late Roman cavalry (5th century AD) comes from St Hieronymus (XIX, Migne vol. 23, col. 386–387): 'Suppose a person of the rank of tribune to be degraded through his own misconduct, and to pass [down] through the several steps of the cavalry service until he becomes a private, does he all at once cease to be a tribune and become a recruit? No; he is first *primicerius*, then, successively, *semitor*, *ducenarius*, *centenarius*, *biarchus*, *circitor*, *eques*, then *tiro* …' Such a succession of ranks seems to be at least partially confirmed for 4th–5th century cataphracts by written references to officers and troopers of the army:
Tribunus (Dorotheus, tribune of a οὐεξελλατίωνος ἱππέων καταφρακταρίων at Antinoe; BGU I, 316 = M. Chr. 271, of AD 359).
Ducenarius/Decenarius (inscription from Bolu).
Centenarius (Fl(avi) Ingenui/*centenari(i) ex num(ero) eq(uitum)/cataf(ractariorum) sen(iorum*), stele from Lyon.

Biarchus (inscription from Concordia Sagittaria; CIL, XIX S 418, Flavius Vitalianus, *biarchus vexillationis equitum cataphractariorum*; Arsinoite papyrus, BGU I, 316).
Circitor (inscription from Amiens; CIL, XIII 3493; Valerius Durio, *circitor* of a *numerus catafractariorum*; and inscription from Eporedia (Ivrea, North Italy) of Valerius Ienuarius, *circitor* of a *vexillatio cataphractariorum* – AD 312, so probably killed at the battle of Rivoli).

The rank of *decurio* is still recorded for the c*atafractarii* in late 4th-century Egyptian papyri. The mention of two *catafractarii* in the above-noted *Ala II Herculia dromedariorum* is not an indication of rank, as suggested by some scholars, but simply means that within this camel-mounted unit horse-mounted *equites catafractarii* constituted an elite shock force. However, other documents might seem to support either interpretation (CPR V 13 + P. Rainer, *Cent*. 165):

Sarmatian cataphract depicted on Trajan's Column, showing a careful depiction of a long, straight sword in a scabbard with a rounded chape slung at the right hip. (Cast in Museum of Civiltà Romana; photo R. D'Amato, courtesy of the Museum)

Three letters record stages in the career of a soldier named Sarapion. The first authorizes his admission to the *schola catafractariorum*; the second (from AD 396) records his promotion to *decurio*; the third (AD

401) records his discharge on medical grounds. Notably, the second letter also mentions the advancement of a certain Apion from *eques* to *cataphractarius*, using the same verb term for both Sarapion's promotion and Apion's advancement – *prov(ectus*). In the third letter, Sarapion and others discharged at the same time are placed in three categories: *dec(uriones)*, *catafrac(tarii)*, and *eq(uites)*. Nevertheless, the mention in the *Notitia Dignitatum* of entire units of *cataphractarii* seems to point to the following interpretation: the men, already *equites*, were *provecti* to the quality of heavy cavalrymen, *cataphractarii*. The discharge letter simply mentions a specific rank and two different categories: the *decuriones*, then the *equites cataphractarii* and the simple *equites*.

The weapons held by soldiers depicted on Trajan's Column in the early 2nd century are believed to have originally been added in metal which has since degraded or been looted, leaving them empty-handed. The pose of these Sarmatian cataphracts suggests that they were carrying long lances balanced in the 'trail arms' position. (Cast in Museum of Civiltà Romana; photo R. D'Amato, courtesy of the Museum)

Armoured horse-archer in a 3rd-century graffito from Dura Europos; see reconstruction as **Plate C1**. Note the clear depiction of the shape of the powerful recurved bow. The quartered disc motifs shown here on the unarmoured horse seem more likely to be brands than harness ornaments. (Drawing by Andrea Salimbeti ex Rostovtzeff)

Each *tribunus* commanded a *turma* (Ammianus, XVI, 12): 'So, when Caesar had seen from a distance that the cavalry was looking for nothing except safety in flight, he spurred on his horse and held them back like a kind of barrier. On recognizing him by the purple ensign of a dragon, fitted to the top of a very long lance and spreading out like the skin of a serpent, the tribune of one of the *turmae* stopped, and, pale and struck with fear, rode back to renew the battle'. The Emperor Claudius II had previously been a *tribunus* of *cataphractarii.* A *turma ex cataphractariis* was perhaps composed of 100 men, at least from the mid-3rd century (SHA, *Div. Claud*., XVI, 2).

‘Egg-shaped’ *spangenhelm* constructed of horizontal elements between nailed framing, worn by Sarmatian cataphracts in the reliefs of scene XXXI, Trajan’s Column, early 2nd century AD; see also back cover, top photo. Note the cheek-guard shaped to a point beside the chin. (Cast in Museum of Civiltà Romana; photo R. D’Amato, courtesy of the Museum)

In more senior echelons, a *dux* like Aurelianus could have, among other troops, 800 *equites catafractarii* under his command (SHA, *Div*. *Aur*., XI, 4). Innocentius, the commander of all the cataphracts in Emperor Julian’s army at the battle of Argentoratum in AD 357 – one of four senior officers to be killed – is called by Ammianus both *rector* (XVI, 12, 38) and *dux* (XVI, 12, 63). But the commander of the *catafractarii* in Britain is again a *praefectus* according to the *Notitia Dignitatum* (ND Oc. XL, 21). As for the *clibanarii*, in the 4th-century inscription referring to Valerius Fuscianus we read that his *Vexillatio equitum catafractariorum clibanariorum* was under the command of a *praepositus* named Valens.

This relief showing a Sarmatian turning to deliver the ‘Parthian shot’ with his bow might seem to reveal a rear neck-flap on the helmet, but comparison with other figures argues that it is simply the effect of the rider’s long hair. (Cast in Museum of Civiltà Romana; photo R. D’Amato, courtesy of the Museum)

It is evident that the standard-bearer of such units carried a *draco* ‘wind-sock’ standard. However, the term *draconarius* is attested only from the 4th century; before then the standard-bearer was called simply the *signifer*, as in other cavalry units.

FORMATIONS & TACTICS

According to Herodian (VII, 2), in the 230s AD the Osrhoenean and Armenian armoured horse-archers in the army of Maximinus Thrax proved to be very effective against the Germans in the Rhineland campaigns, taking them by surprise, attacking with agility and then retreating without difficulty.

Bronze mask helmet (lacking mask) of Herzenburg typology, 2nd−3rd century, from Vechten; see **Plate F1**. A number of variant specimens of mask helmets with 'Phrygian' extensions of the apex, decorated with *protomes*, have been recovered. (Drawings by Andrey Negin, Vechten Museum)

The order of march described by Herodian (VIII, 1) for Maximinus' subsequent invasion of Italy put these cavalrymen on the flank: 'Leading his army down into level country, Maximinus drew up the legions in a broad, shallow rectangle in order to occupy most of the plain; he placed all the heavy baggage, supplies, and wagons in the centre of the formation and, taking command of the rearguard, followed with his troops. On each flank marched the squadrons of *katáfraktoi*, the Moroccan javelin men, and the archers from the East.' The same was said of Emperor Julian's army approaching the battlefield of Argentoratum 120 years later (Amm., XVI, 12, 7): 'to the song of the trumpets (*tubae*) sounding in unison, the infantry forces were led out at a moderate pace, and to their flanks were joined the squadrons (*turmae*) of cavalry, among whom were the *catafractarii* and the archers (*sagittarii*)'.

E FIRST HALF OF 4th CENTURY AD

(1) *Cataphractarius* Valerius Maxantius
Valerius is reconstructed after his funerary monument, which describes him as an '*eq(ues) ex numero kata(fractariorum)*'. He represents one of the heavy cavalrymen formerly serving under Maxentius who, after Constantine's victory, were sent to patrol the north-eastern frontiers of the Empire. A strong Sarmatian influence is visible in the scale armour, the padded long-sleeved under-armour garment, and the boots, diffused among the Roman cavalry since the 2nd century. His primary weapon is the *contus*, but he also wears a long *spatha* of Iranian origin, copied with its belt from the precious specimen in the Újlak Bécsi út grave near Aquincum (Budapest) in Pannonia. He carries a ridge-helmet of the new typology introduced into the Roman Army during the Tetrarchy, and wears a *galericulum* to absorb its weight and the force of blows to the head.

(2) *Centenarius* Klaudianus Ingenuus of *Numerus equitum catafractariorum seniorum*; Lugdunum, Gallia, c. AD 325−350?
This is copied from his stele, but its date is debatable, and perhaps as late as the early 5th century. The hybrid pseudo-Attic ridge-helmet with its high crest shows a red-orange plume, which is confirmed for the late Roman heavy cavalry by a later mosaic at Santa Maria Maggiore. The other metallic parts of his equipment are the *lorica squamata* and greaves, which are worn over leather protection and boots, respectively. On his forearms note the decoration of his embroidered *tunica manicata*, and his long cavalry *sagum* cloak has a fringed edge. According to his gravestone his two *calones* (military servants) had a javelin, a shield and a short sword.

(3) *Draconarius* of *Numerus equitum catafractariorum seniorum*
The paintings in the Via Latina catacombs, contemporary to the triumphal procession of Constantius II in Rome, are an often-neglected source illustrating Roman cataphracts. They show the use of old typologies of masked helmets, and the wearing of the *thorax stadios* muscled cuirass (also attested among the Persian Sassanid *clibanarii*, recalling traditional links with the Greco-Roman world). Ammianus describes the *draco* standards carried in Constantius' procession (this one copied from a specimen found at Carnuntum in Pannonia Superior) as having shafts encrusted with precious stones: 'he was surrounded by dragons, woven out of purple thread and bound to the golden and jewelled shafts of

spears (*dracones hastarum aureis gemmatisque summitatibus inligati*)'.

Cataphracts always attacked in close formation; this exploited their mass impact and their long lances and minimized the drawbacks of their limited individual manoeuvrability. If separated, a single cataphract was vulnerable to being surrounded by nimbler adversaries, so the goal was to maintain close formation under all circumstances. A unit of cataphracts pointing their spears outwards had sufficient protection against spears and swords and were almost invulnerable to arrows and missiles. They often attacked in a wedge formation, the *cuneus equitum*, now performed by cataphracts and *clibanarii* without the participation of the Germanic mercenaries who also used a similar formation. In his Panegyric, Nazanzius states that the *catafracti* were trained to maintain their momentum after they crashed like a ram (*arietare*) into the enemy's line, and 'since they are invulnerable they resolutely break through whatever is set against them'.

Early 3rd-century helmet of an Osrhoenian or Parthian cataphract in Roman service, with Germanic additions, recovered from Thorsbjerg moor. (Schleswig-Holstein Landes-Museum; drawing by Andrey Negin)

However, this tactic did not work for Maxentius against the soldiers of Constantine the Great at the battle of Turin (AD 312), which was probably fought south of the Dora river, between Alpignano and Rivoli. On that occasion the speedy march of Constantine's army surprised the enemy

commander, whose army was already drawn up for battle. The *clibanarii* of Maxentius' army formed a wedge (*in cunei modum*) with their flanks extending down-slope to their rear. They hoped to take advantage of the reverse slope to conceal the length and disposition of their battle line, provoking the Constantinians to make a direct attack which would allow the Maxentian wings to wheel in and surround their attackers. Constantine anticipated this, however, and sent his men forward fast on both flanks. According to the historian Levi, he extended both his wings, thus confronting his opponent's convex wedge with a concave formation – a 'refused centre'.

Helmet mask dating from *c.* AD 300−325 from Sisak, Pannonia. This may be the latest surviving example of a Late Roman mask helmet. Its triangular shape recalls the iconography of Sassanian masks, and of mask helmets represented on the base of the 4th −5th century Column of Arcadius and Theodosius in Constantinople. (Sisak Archaeological Museum; photo R. D'Amato, courtesy of the Museum)

Remains of possible cataphract helmet, 4th−5th century AD, from the Balkans; it was found in a very fragmentary state, associated with a horse bit, and remains of ringmail still with bone fragments inside. The reconstruction shown here is speculative; hybrid helmets combining old and new parts were probably common, so the presence of this basically Niederbieber type at this date is not surprising. However, after close examination Dr Christian Miks advises caution in this case, since the nasal guard shows signs of once having belonged to a two-part 'ridge' helmet rather than this single-part Niederbieber bowl. (European private collection; photos R. D'Amato, courtesy of the owner)

Constantine opened the middle of his line and let the enemy's first wedge of *clibanarii* pass unchecked. Finding themselves in the middle of Constantine's troops, the impetus of their charge prevented them from changing direction. Closely surrounded, they were then annihilated with maces by the Constantinian infantry: 'Thus our men assailed … them with clubs equipped with heavy iron knobs (*gravibus ferratisque nodis*), which wore [them] out with their beating, and when … inflicted especially on their heads they forced those whom the blows had confused to tumble down. Then they began to fall headlong, to slide down backward, to totter half-dead or dying [while] held fast by their saddles, to lie entangled in the confused slaughter of the horses, which in uncontrolled pain when their vulnerable points had been discovered, cast their riders everywhere …' (Naz., *Pan*. IV, 24, 5). When the whole Maxentian line gave way Constantine charged at the head of his cavalry and did great slaughter, routing and cutting down the enemy. The latter fled desperately towards the gates of Augusta Taurinorum (Turin), only to find them closed by the citizens. The approaches to the gates were subsequenty choked by the mass of corpses of the unfortunate armoured cavalrymen (anon, *Pan.* XII).

Another useful description of the use of heavy cavalry is given in several passages by Ammianus (XVI, II, 5), regarding Julian's campaign in Gaul against the Franks and Alamanni in the summer of AD 356. According to him, Julian ('the Caesar'), took with him only the *cataphractarii* and the *ballistarii*, who 'were far from suitable to defend a general'. He quickly reached Auxerre and Troyes, where he fought the Germans; after reconnoitring he strengthened the flanks of his army and, taking advantage of suitable terrain, the heavy cavalry ran them down and trampled them underfoot. However, with such heavily encumbered troops Julian was unable to pursue them and fully exploit the victory. From the description it is clear that Julian used his heavy cavalry for shock attacks on the barbarians in the open field, while protecting their flanks on the march or in defence by barrages from his *ballistae.*

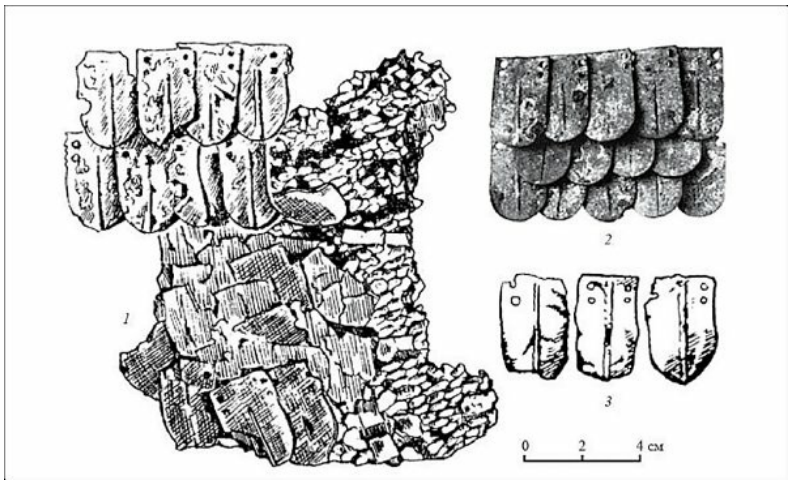
Front and back of an iron scale from Gamala on the Israel−Syria border, one of several identified by Siebel as possible elements of a cataphract armour of the late 1st century AD. The dimensions are 5.1cm long by 3.5cm wide (2 x 1.4in), with a convexity of 5mm if seen in profile. (Drawings by Andrey Negin ex Siebel, 2007)

Close-up of the scale armour worn by early 2nd-century Sarmatian cataphracts in scene XXXI of Trajan's Column. (Cast in Museum of Civiltà Romana; photo R. D'Amato, courtesy of the Museum)

However, the following year the battle of Argentoratum proved that the heavy armoured cavalry was not invincible. There the Germanic warriors opposed the cataphracts with their own cavalry in close order, intermingled with lightly-armed infantry skirmishers. They recognized that

a Germanic warrior on horseback, no matter how skilful, could not match a Roman *clibanarius.* However*,* in the hottest of the fight the infantry could creep about low and unseen, and by wounding a horse's side or belly could make it throw its rider, whereupon he could be slain with little difficulty (Amm. Marc. XVI, 18−22). That was exactly what happened. While trying to re-order their formation after the first clash with the Alamanni the *cataphracti equites*, seeing their leader wounded and one of their companions slipping over the neck of his horse, which had collapsed under the weight of its armour, scattered in whatever direction they could. This would have caused complete confusion by trampling the Roman infantry had the latter not held their tight formations.

In AD 390, Vegetius (*Ep*. III, 23) also writes of the advantages and weaknesses of the heavy cavalry: '*Cataphracti equites* are safe from being wounded on account of the armour (*munimina*) they wear, but because they are hampered by [its] weight, are easily taken prisoner and often vulnerable to lassoes. In battle they perform better against infantry in loose order than against cavalry, but, posted in front of legionaries or mixed with legionaries, they often break the enemy line when it comes down to close fighting'. Against unprepared or disorganized troops the attack of a squadron of cataphracts might well be devastating, as in Julian's AD 356 campaign against the Germans; but if their attack was checked, the riders were so handicapped by the weight of their gear that they were at a disadvantage against more lightly armed but more mobile adversaries.



Roman scale armour found in graves of Sarmatian heavy cavalrymen, 2nd century AD. **(**1) Art. Vozdvizhenskaya (Gushchina, Zasetskaya, 1989); (2) H. Zubovsky; (3) Nikolsky burial ground (Zasetskaya, 1979). The burials at the Zubovsky farm in the village of Vozdvizhenskaya in the Zakuban, southern Russia, at Gilnikov Vysochino on the Lower Don, and at Nikolsky in the Volga region, yielded iron and bronze scales with a rounded bottom edge and a central rib typical of Roman construction. They resemble in size and outline the scales visible on Trajan's Column worn by the Rhoxolani or Iazyges

cataphracts. (1 and 3, drawings by Andrea Salimbeti ex Simonenko; 2, from H. Zubovsky, IAK, 1901)

Based upon these and other accounts, M. Mielczarek proposes that it was the ordering of the battle-line as much as the equipment that made the essential difference between *catafractii/catafractarii* and *clibanarii*. The *catafractus* was a heavy mounted spearman fighting in serried ranks and files in so-called ‘column order’; he was linked into a battle-array composed of different, separate, but collaborative units, and the ‘column order’ was particularly effective against a deep enemy infantry array. The more heavily encumbered *clibanarius*, by contrast, was mainly employed in wedge formation in combination with horse-archers. The two accounts quoted above might seem to support this opinion.

Front of a bronze appliqué decoration from a baldric, representing a Roman heavy cavalry officer; turn of 2nd/3rd centuries, from Trecenta (Rovigo). He clearly wears a short muscle cuirass above vertical plates around the lower torso, over a jerkin with heavy hanging *pteryges* (Inv. IG 288774; photo courtesy of Soprintendenza per I Beni Archaeologici del Veneto, Padua)

The rear of the bronze appliqué from Trecenta, showing the three-dimensional figure of the rider. See reconstruction as **Plate B3**. (Inv. IG 288774; photo courtesy of Soprintendenza per I Beni Archaeologici del Veneto, Padua)

When, in the Eastern Empire, the heavy cavalry additionally began to be issued with bows, the distinction was no longer necessary. The word *klibanarioi* disappeared from the army vocabulary until the 10th century, when Byzantine *klibanophoroi* were briefly revived by Nikephoros Phokas. Meanwhile, the term *kataphraktoi* survived until the 14th century to designate the super-heavy cavalrymen of the Eastern Roman Empire.

F SECOND HALF OF 4th CENTURY AD

(1) *Catafractarius*, battle of Argentoratum, AD 357
The heavy cavalrymen painted in the catacombs of Dino Compagni (Via Latina), from which we reconstruct this mailed rider, still show at the time of Constantius II and Julian the use of old types of masked helmets with eagle *protomes*, of the Heddernheim or (as here) Vechten types. Interestingly, this man carries javelins with barbed heads, which are represented on some stelae of *catafractarii*, like that of Klaudianus. *Catafractarii*, in contrast to *clibanarii*, are often represented with the wide shield of the *scutarii*.
(2) *Clibanarius* of *Vexillatio equitum catafractariorum clibanoriorum*; Claudiopolis, c. AD 350
We are able to reconstruct quite a good image of richly-equipped *cataphractarii* and *clibanarii* from iconography together with descriptions in the sources (*Pan.* IV, 22; Amm. Marc. XVI, 10, 8; Jul. Imp., *Or. in Constantii Laudem*, I, 37ff). The predilection of Constantius II for such troops is attested by the numerous regiments raised by him, and quoted in his funerary oration pronounced by Julian. The reconstruction is based partially on the Dura Europos material, but note the ridge-helmet prefiguring the famous 7th-century Sutton Hoo Germanic specimen; this fits well with a description of *clibanarii* wearing face-mask helmets

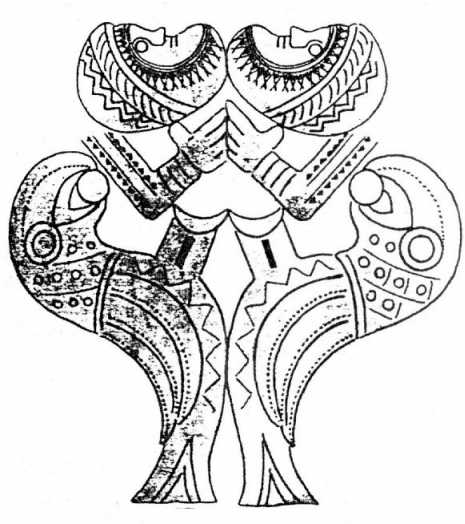
(‘*personati*’). Claudian, in his *Panegyrics*, describes the distinctions of the armoured cavalrymen of the Imperial retinue: sashes around the waist, peacock feathers on the helmet, and gilded and silvered cuirasses and shoulder-guards. Iconography attests the use of the old-style Roman ‘four-horn’ saddle at least into the first half of the 5th century.

(3) *Clibanarius* of *Schola scutariorum clibanariorum*; Constantinople, AD 380

For this man we have used a specimen of heavy cavalry helmet of ridge type, and a blazon for his small shield copied from the *Notitia Dignitatum* (in which the heavy cavalry’s use of battle-axes is also attested). The striking appearance of the *clibanarius* is noted by Claudian describing the army in Constantinople on 27 November AD 395: ‘It is as though iron statues moved, and men lived cast from that same metal’. On that occasion he mentions plumed helmets (*cristato vertice*), and armour of flexible scales or *laminae* fitted to the limbs (*conjuncta per artem flexilis inductis animatur lamina membris*).

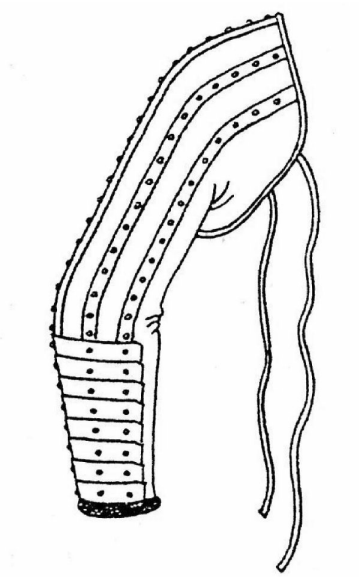
ARMS & EQUIPMENT

To understand the equipment of Roman heavy cavalrymen we should first turn to the ancient authors' descriptions of the Sarmatian, Parthian or Persian cataphracts; the Romans copied this class of troops from them, and Orientals and Sarmatians often formed the core of the first units they employed. It is even possible that Roman heavy cavalry was equipped with captured Persian armour, if we give credit to, for example, the passage of the *Historia Augusta* relating to the life of Severus Alexander (*Al. Sev.* LVI). There he boasts that 'we have routed one hundred and twenty thousand of their cavalry; we have slain in battle ten thousand of their cataphract horsemen, whom they call *clibanarioi*, and we have equipped our own men with their armour'. This passage has often been dismissed simply because of the fancifully high number of enemy dead claimed. However that may be, the source notes that all the gear taken from the dead – not just that of the *klibanarioi* – was distributed to Roman soldiers; the emperor probably emphasizes the weapons and armour of the heavy cavalry simply because they had been particularly feared as invincible.



Roman 3rd-century sword fitting from Nydam moor, Denmark, depicting the heads and arms of two cataphracts – note the *manica* arm protection. (Drawing by Andrea Salimbeti ex Gamber)

Beside the ancient sources, a rich iconography, and archaeological finds especially in Southern Russia, Ukraine and the East, have shone important new light on these Roman heavy cavalrymen.



Reconstruction of Roman *manica* arm protection, from various finds. (Drawing by Andrea Salimbeti ex Gamber)

OFFENSIVE WEAPONS

Spears

The main weapon of cataphracts (both *catafractarii* and *clibanarii*) was the *contus Sarmaticus*, a lance reaching 4−4.5m (13−15ft) in length. The heavy *contus* is described by Servius (*Ad Aen. VII*, 664) as like a long spear with a short iron point. We find oblique references to the *contus* in the *Argonautica* of Valerius Flaccus (VI, 161−2, 234−238, 256−258), and in Statius' *Achilleides* (II, 132−134). This spear was mainly used with two hands (cataphracts were not always equipped with shields), held along the horse's flank and wielded freely. However, according to Heliodorus, at least among the Persian cavalrymen the *contus* could also be attached to the horse at the neck and croup. It is well represented in graffiti and frescoes at Dura Europos, sometimes adorned with ribbons. The fragments of a spearshaft from Dura possibly attest that the *contus* shaft was painted red, while later sources (*Notitia Dignitatum*) show it painted in various colours. At Piercebridge (possibly Morbio) in Britain four spearheads have been found, of which one, 14.5cm (5.7in) long with a slender leaf-shaped blade, might fit the bill as a cavalry lance.

Maces and axes

Arrian (*Tact*. IV, 9) mentions, specifically as a weapon for Roman cavalrymen, a mace as well as a sword and spear: '[they] also employ small axes [*sic*] with spikes in a circle all around'. A copper-alloy mace

head, today preserved in the National Museum in Damascus, is 8.2cm in diameter and 6.5cm long (3.2 x 2.6in). Other examples of 3rd-century maces are known from Mauretania, and in the collections of the Louvre (from Mesopotamia) and the Boston Museum of Fine Art. Significantly, Arab historians recorded that the Iranian heavy cavalry were also equipped with maces, suggesting a Parthian or Sassanian model for their use by the Romans.

The *Notitia Dignitatum* adds heavy axes to the equipment of the Imperial Guard cavalry. These may be represented by examples from Constantinople; one of them found in the Great Palace excavations is decorated on the blade, and another bears an inscription.

Swords

Long Sarmatian swords are known to have been used in Roman provincial areas in Central Europe, and even a Chinese sword was found in the Chatalka burial of the Thracian heavy cavalryman. Cataphracts wore their swords on their left side and used them as a secondary weapon when a lance could not be employed. The swords from Chatalka are characterized by rich gold and silver decoration, showing a typical Sarmatian motif 'similar to a wild beast' which was influenced by Chinese and Central Asian traditions. The handguard of one sword is decorated with panther figures, the other one with branches of ivy. These Sarmatian-style swords are approximately 90cm (35.5in) long. The flat gold pommel of one is ornamented with a Sarmatian *tamga* tribal symbol, also visible on the gold, gilded bronze and silver scabbard plates incised in the Sarmatian zoomorphic style. The highly decorated scabbard slide in nephrite, which held the sword in a transverse position on the left side, is of Chinese origin, and attests to the very wide range of reciprocal influences that the Iranian peoples of the steppes shared with both Western and Eastern cultures.

A presumed right thigh protector from Tower 19 at Dura Europos, *c.* AD 256; it is seen from the exterior, with all its complex lacing hidden. The leather lamellae overlap downwards, so the exposed edges are downwards and to the rear when the wearer was mounted. This '*cuisse*' measures 74cm long by 57cm wide (29 x 22.4in), in 13 rows of lamellae 6cm or 7cm long by 4.5cm, plus an extra long row (8−9cm), and a single scale (9cm x 6cm) at the bottom. According to James, the protector was probably covered with fine linen. It was attached to the thigh with leather laces knotted through the second scale in from the outer edges in the 12th row. (Yale University Museum, no. 1938.5999.1009; photo courtesy of Dr David Nicolle)

From the Dura Europos graffiti, the *cataphractarii* seem to be armed with short daggers or swords in metal-plated sheaths. The *circitor* Valerius Durio is represented on his tombstone as brandishing a scythe-like blade. On the stele of the *centenarius* Klaudianus one of his servants carries a short sword, perhaps a *semi-spatha* or *scramasax*.

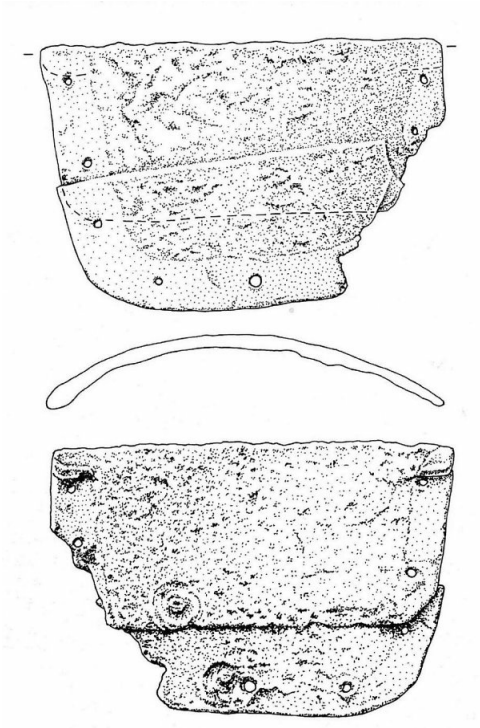
Bows

On Trajan's Column some Sarmatians are very realistically represented in the 'Parthian' shooting position. It is possible that the early cavalrymen of a newly formed Thraco-Sarmatian ethnic component serving in the Roman Army as *cataphractarii* were also horse-archers. The bow was the main weapon of the Osrhoenian cavalrymen enlisted by Severus Alexander. The bow had a composite shaft, in wood covered on the outside (back) with a glued layer of sinew; bone nock-plates were applied on the tips (as on specimens from Dura Europos). The evidence suggests the Yzri typology of bow, 1.275m (40in) across the chord, with an unbroken sinuous curve

when strung. The presence of *sagittarii clibanarii* among the units of the Late Empire suggests a general tendency to equip the heavy cavalryman like the mounted archer of the steppes, able to shoot on horseback but retaining the impact of the charging lancer.

DEFENSIVE EQUIPMENT

The protective armour of the cataphracts underwent development, gradually expanding to cover as much of the body as possible. We can form a reasonable image from the graffito in Tower 17 at Dura Europos, supported by the sources (*Panegyrici Latini,* IV, 22; Amm. Marc., XVI, 10, 8 ff, description of the triumph of Constantius II with his *clibanarii*; and in Jul. Imp., *Or*. *in Constantii laudem*, I, 37 ff).



Exterior, profile and interior of iron laminated limb armour from Tomb 28 at Dura Europos. While probably *c*. AD 256, this was found not in a dated level but in earth backfill. (Drawing by Andrea Salimbeti ex James)

Helmets

Sarmatian cataphracts shown on Trajan's Column wear particular 'egg-shaped' helmets (i.e. blunt quasi-conical) with framing, and similar images are seen in Bosphoran crypt frescoes of the lst−2nd centuries AD. They are also seen on tombstones more often than Hellenistic 'pot' helmets. These Sarmatian helmets became a prototype of subsequent *Spangenhelme*,

which were widespread by the time of the great migration of peoples in the 4th and 5th centuries AD.

One of the first specimens of Iranian helmets within the Roman armoury probably dates from the employment of heavy cavalry on the Rhine frontier: the Eastern Roman mask helmet of the 3rd−4th centuries AD from Thorsbjerg marsh, now preserved at the Landes-Museum in Schleswig-Holstein. The similarity between its perforated bell-shaped skull made up of silver sections linked by rivets, and the helmet of the Parthian prince in the 1st-century Kuh-i-Chodscha fresco, is unmistakable, and it lacks only the red felt under-cap. The open mask of the Thorsbjerg helmet is usually dated to the 3rd century, the period of most finds from Thorsbjerg and Vimose marshes; however, the original decoration also allows identification with the beginning of the 4th century.

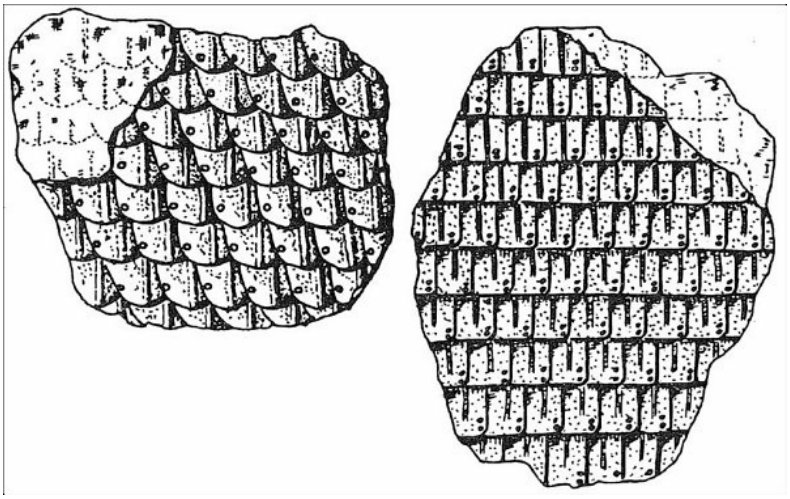
Bronze (copper alloy) forearm defence, early 4th century AD, from the Danube frontier. This remarkable piece is composed of six plates, with a total measurement of 11.5cm (4.5in) long. The largest plate is at the top; each plate is perforated at the centre to attach to the one below it, and at both ends to attach to straps. The lowest plate hung down over the hand. (Museumverein Pöchlarn; photo courtesy of Dr Manfred Beer)

'Conical' helmets entered the Roman Army under Parthian or Sarmatian influence. Roman heavy cavalry equipped with quasi-conical segmented helmets can be seen on the Arch of Galerius (r. AD 304−311). By the turn of the 4th and 5th centuries, when the spangenhelm seems to have become the most popular type in Europe, a majority of Roman cavalrymen used it. The helmets worn by Roman cataphracts of the 3rd−5th centuries either consisted of metal segments joined at the apex (spangenhelms), or were of

two-piece ‘ridge’ construction, like that of the dead Persian found in Dura Europos. The apex was decorated with either inserted crests or plumes or with floating ribbons. The late 2nd−early 3rd-century *clibanarius* in the famous graffito at Dura Europos wears a tall, truly conical helmet constructed from small plates, comparable with helmets of Parthian type also adopted by the Sarmatians (e.g. finds from Tiflisskaya stanitsa, the Istyatsky hoard, and Nekrasovskaya stanitsa). This shape of helmet for the super-heavy cavalry in the 5th century seems be confirmed by the Babylonian Talmud.

Fragment of a cataphract’s limb armour, 4th−5th century, from the Balkans. (European private collection; photo R. D’Amato, courtesy of the owner)

The helmet might be worn, following the tradition of the Persian cataphracts, with a ‘human face’ mask (*simulacra humanorum vultuum* – Amm. Marc., XXV, 1, 12−13), or face protection of scale or mail. Prototypes of such masked helmets were found in both West and East in earlier centuries. The Chatalka finds include a bronze *kranos* with mask (*avtòprosopon*) that followed the Greco-Roman tradition, decorated with a gold laurel crown found in the same grave and surmounted by a deep horsehair crest. Describing Sassanid and Roman cataphracts and *clibanarii* of the 3rd−4th centuries AD, both Ammianus Marcellinus and Heliodorus mention face-mask helmets.



Fragment of scale armour sewn to fabric backing, from the Chatalka tumulus burial in Bulgaria, *c.* AD 75−100. Buyukliev suggested that this was horse armour, but only his drawings remain, since the actual find has since been misplaced in the Stara Zagora Museum. (Drawings by Andrea Salimbeti ex Bujukliev)

However, the numerous and widespread finds of Roman helmet masks do not prove that all or even large numbers of cataphracts were equipped with masks fitted to framed conical helmets or more traditional Roman cavalry types. Those of officers and standard-bearers seem more likely to have been adorned with such masks. The Prutting Altar, of the early 4th century, shows a Heddernheim-style helmet complete with high crest, feathers and mask, associated with the panoply of a heavy cavalry officer. A Roman masked helmet also probably dating from the 4th century has been found at Sisak (Siscia) in Pannonia. For the later period, the Freshfield drawings of the Column of Arcadius and Theodosius (AD 395−403) show masked helmets similar to the Sisak specimen for the super-heavy cavalrymen of the Imperial Guard in Constantinople. The mosaics of Santa Maria Maggiore show heavy cavalrymen using masked helmets, with high *protomes* similar to some actual 3rd-century specimens. Open masks might be possible; the heavy cavalrymen depicted in the catacombs of Dino Compagni (Via Latina) show the use at the time of Constantius II and Julian of old types of mask helmets with eagle *protomes*, of the Heddernheim or Vechten types.

A typical kind of masked helmet for cataphracts of the Late Imperial period might have been a less lavishly decorated version of the famous Sutton Hoo find, which seems to be suggested by a graffito from Bulgaria. This possibility is proposed by O. Gamber, and followed by various scholars including I. Lebedinsky, E. McGeer and the present authors. Such helmets might be crested; crests and plumes of the Imperial Guard might be purple, or of peacock feathers – *picturatas galeae Iunionia cristas ornet*

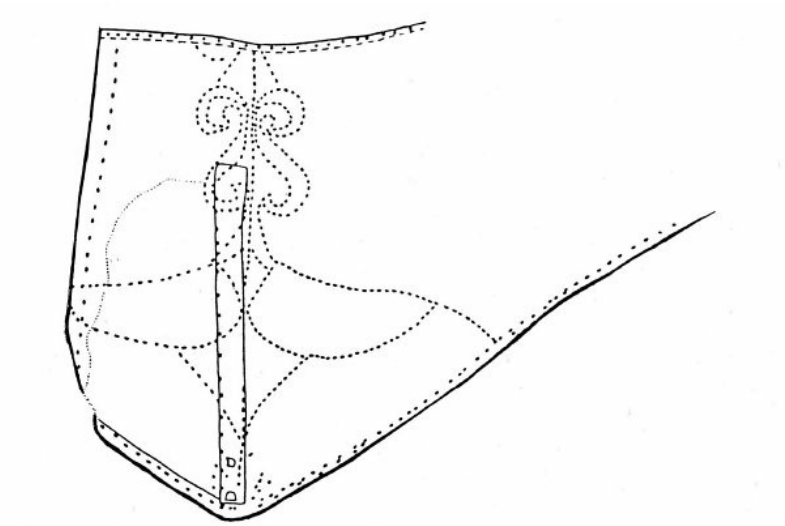
avis (‘how Juno’s bird decks the gay crests upon their helmets’; Claudianus, *De VI Cons*. *Hon*., 575−576).

Exterior and interior of 3rd-century AD leather limb armour, presumably for thigh protection, from Tower 19 at Dura Europos. With provision at the bottom for laces around the leg, it covered the wearer from waist to knee, and today measures 66cm x 45cm (26 x 17.7in) overall. It is composed of black-dyed leather scales varying in size from 5.5cm to 6cm by 4cm to 4.5cm. These are linked laterally by red leather thongs running obliquely across the face of each scale between pairs of holes just above the middle of each vertical edge, and vertically by thongs through slots centred high in each scale. The whole complex is held together by narrow horizontal laces on the front and wider vertical laces on the back, and has a narrow red leather edging strip. (Yale University Museum, no. 1938.5999.1143; photos courtesy of Dr David Nicolle)

Although the sculptor apparently misunderstood its arrangement over their legs, the mounts of the Sarmatian cataphracts (Rhoxolani and/or Iazyges) on the early 2nd-century Trajan's Column are clearly depicted as protected by scale armour. (Cast in Museum of Civiltà Romana; photo R. D'Amato, courtesy of the Museum)

Body and limb armour

'The *equites cataphracti*, the so-called *clibanarii* of the Persians, were [so] protected by armoured coverings and belts of steel *(limbi ferrei cincti)* that you might think them statues chiselled by the hand of Praxiteles, not men. Thin encircling plates *(lamminarum circuli)* fitted to the curves of the body entirely covered their limbs, in such a cunningly articulated way that it adapted itself to any movement the wearer needed to make.' (Amm. Marc. XVI, 10, 8)



Fragment of leather horse armour decorated with rivets, 1st century AD, from Valkenburg in Germania Inferior. The pectoral is 23.5cm (9.2in) deep at the centre, and the style of decoration recalls one of the leather chamfrons found in Britannia. (Drawing by Andrea Salimbeti ex Junkelmann)

Possible element of horse armour from Hatra, *c*. AD 75−100. James suggests that this cast copper plaque showing the head of Medusa could be a piece of head protection for a horse, possibly part of a chamfron; note the fixing holes. It was found in the Fourth Temple at the city of Hatra – a source of vassal troops for the Roman Army, where a number of graffiti depicting cataphracts have also been found. The exact dimensions are now unknown, and no other images are available. (ex Fukai/Public domain)

The first archaeological evidence of cataphract armour is probably represented by large scales from Gamala in the Israeli−Syrian borderland,

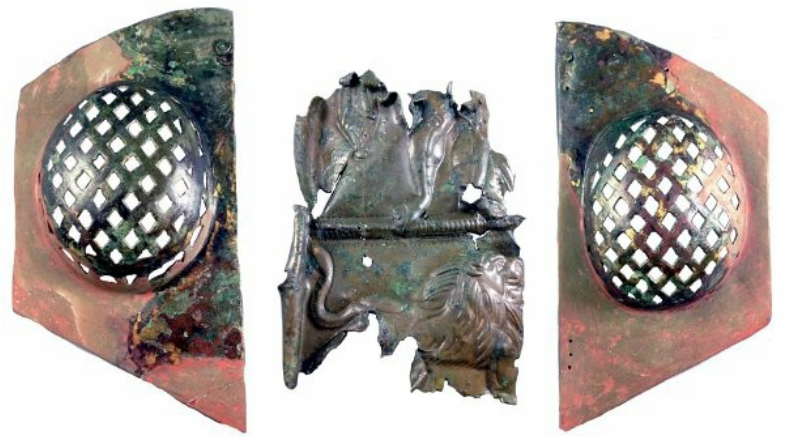
which are of special interest in that they presumably reflect the Parthian influence visible in the later Dura Europos graffiti. The Babylonian Talmud (Sanh 75b) describes Persian heavy cavalrymen clad in *shiryon clipa*, which is a clear reference to the scale armour of the *cataphracti* (Baba Batra 9b, Jalkut Shimeoni 478). One large iron scale is convex, straight at the top and cut to an angular point at the bottom. Linkage to other scales was by a vertical pair of fastening holes at its right upper end, and a third hole in the middle. The dimensions are 5.1cm long by 3.5cm wide (2 x 1.4in), with a convexity of 5mm if seen in profile.

Tacitus (I, 79, 3), discussing the armament of noble Sarmatians in AD 35 (two generations before his own time), mentions ‘an armour, made of metal plates or hardened leather, that is not possible to pierce with any blows, but allows the unseated cavalryman the possibility of getting up again’. Tacitus does not specify, however, whether the leather armour was made of hardened scales or was a corselet of banded hardened leather, as is visible on the pediment of Trajan’s Column. We may suppose that scale armours were made of fabric to which were sewn metal, horn, bone or rawhide plates or scales overlapping one another, the whole fitting the body while flexible enough to allow movement. Most Sarmatian body defences represented in the sources are scale shirts reaching the elbows and knees; simultaneously, however, cataphracts shown on Trajan’s Column (scenes XXXI and XXXVII) wear scale armour covering the whole length of the arms and legs. Perhaps this was also the armour of the mentioned *Ala catafractata*, with both riders and horses encased in *lorica plumata* (i.e. armour of scales of ‘feather’ shape with a central rib), leaving only the face and fingers of the rider, and the nostrils, eyes and tail of the horse unprotected.

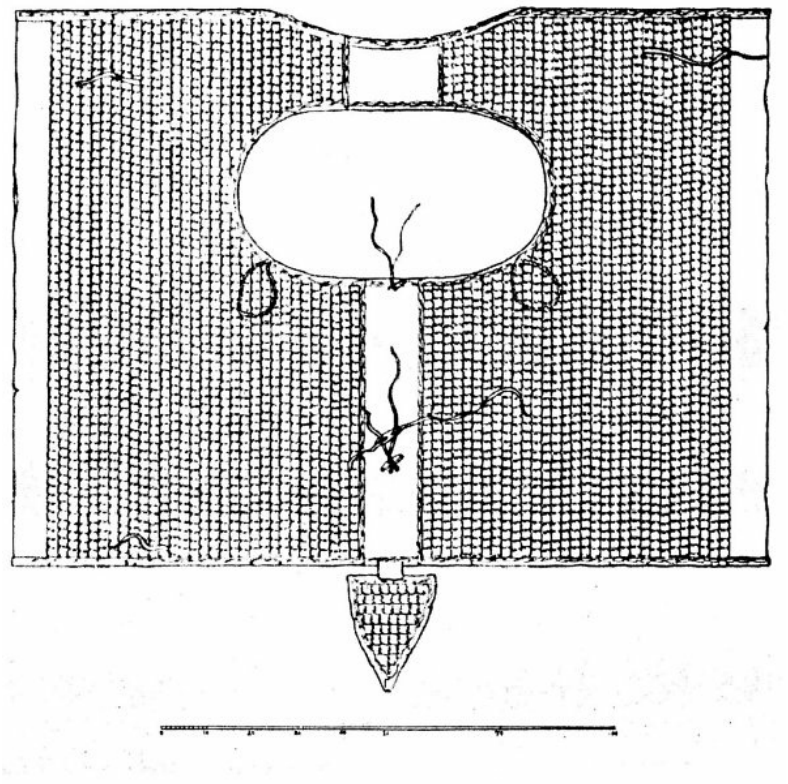
Eye-guards from a horse chamfron, late 1st−early 2nd century, of type A under Schuckelt’s classification. Made of copper alloy, they measure 7.5cm deep by 14.8cm across (2.9 x 5.8in), and were found in 1796 at Ribchester (Bremetennacum, Britannia). After AD 175, during the reign of Marcus Aurelius, that fort is known to have housed Sarmatian auxiliaries; however, these items, together with a famous mask helmet found nearby, might

equally be relics from the earlier garrison, the Spanish *Ala II Asturum*. (British Museum; photo R. D'Amato, courtesy of the Museum)

Captured Sarmatian armours, shown in a realistic manner on Trajan's Column, are identical to the scale armour found in Sarmatian burials. The images on the Column which show the Rhoxolani wearing a *lorica plumata* covering the whole body down to the ankles are often contested as fanciful artistic treatments with some element of reality. Archaeology has not yet confirmed such armours for this period, but similar suits of scale covering the whole body and legs were found in Scythian barrows, and this Scythian legacy may have been passed on to the Rhoxolani. Hence, it is quite possible that the cataphracts on Trajan's Column, and by extension the early Roman hired cataphracts, might have had complete arm and leg amour. Fastening protections to the limbs by laces was a very old system, already visible on some Iberian horsemen's equipment from the time of the Punic Wars. Sarmatian cavalrymen's graves of the mid-1st to early 2nd centuries AD have revealed scales that might cover the whole body or be attached to the hem of leather or mail corselets. At the Gorodskoy farm in Adygeia (Russian Federation) complete sets of Sarmatian heavy cavalry armour were found in several burials. In burial No. 6 a segmental conical iron helmet was found together with remains of a scale aventail. The reference by Valerius Flaccus to Sarmatian youths clad in *catenae* (mail armours) suggests the use of composite protection, passing in inheritance from the Scythians to the Sarmatians and eventually to early Roman units of heavy cavalry. A long scale coat, either with or without sleeves but resembling armour depicted on the Trajan's Column pediment, is still visible on a fragmentary relief from Deva (Chester) dated to the time of Marcus Aurelius (r. 161−180 AD).



Horse eye-guards with fragments of a chamfron (Greek, *prometopidion*), 2nd century AD. See reconstruction in **Plate B3**. (European private collection; photo R. D'Amato, courtesy of the owner)



The copper-alloy scale-armour horse trapper, *c.* AD 256, found in Tower 19 at Dura Europos. See body text **page 53**, under (1), for detailed description. (Drawing by Andrea Salimbeti after rep. VI of Baur-Rostovtzeff)

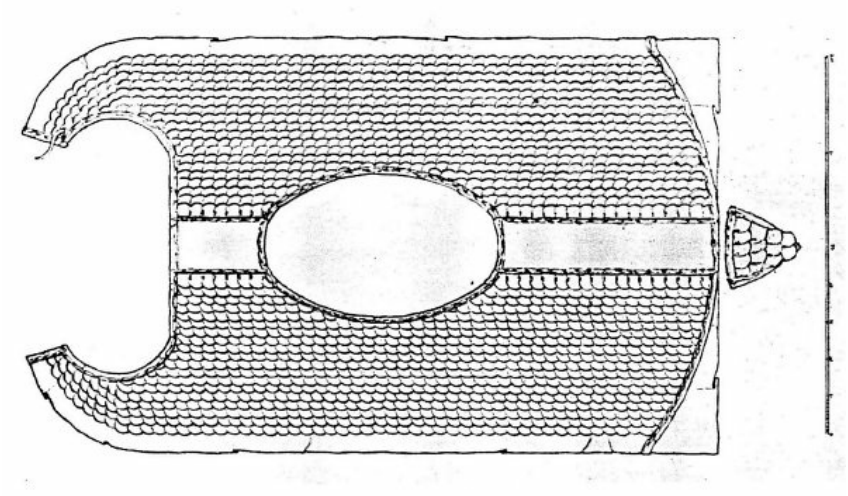
Evidence from Dura Europos, 3rd century AD

For the 3rd century the main artistic and archaeological evidence comes from Dura Europos, a fort on the Euphrates which changed hands between the Parthians and Romans and was finally captured by the Sassanians in AD 257. In the Sassanian fresco of House F, illustrating a fight between Sassanians and Romans, two figures are represented as armoured horsemen (see **page 14**). They (and the light horsemen beside them) were probably copied from members of Palmyrene units. The most visible armoured rider has legs completely covered by iron 'hoops' above high, soft boots, and the body protected by similar laminated (trunk) and scale (skirt) armour. His fallen helmet is of similar shape to the Persian example found in the mine at Tower 19.

His armour seems very similar to that of the *clibanarius* represented in the famous graffito in Tower 17 (see **page 11**). This, and other graffiti from Dura and Hatra, show a fitted combination of scales, plates and

perhaps mail. The sleeve armour shows parallel metal plates similar to the classic Roman ‘laminated’ construction (such ‘hooped’ arm protection dated from at least the early 2nd century BC – e.g. relief in the Pergamum Museum, Berlin). The Greek term for these *circuli laminarum* was in fact used to describe the construction of *clibanarius* armour. The chest is covered with either scale armour alone, or scale combined with metal plates; the Near East had a long tradition of such composite armours. The lower body is protected by scale or mail armour (*caternae ferratae*), while the legs and feet are covered with the same pliable armour as the arms (*laminis tectae*, *limbi ferrei*). Suidas (Suidas lexicon, sub vox *klibanarios*) says that the various parts of the armour were held together by clasps (*peratai*). Vegetius calls this kind of armour *cataphracta*.

Late Roman ringmail of the 3rd–4th century, perhaps pertinent to a heavy cavalryman, has been found in a Thorsbjerg peat-bog. The hip-length hauberk, with elbow-length sleeves, is made of alternating vertical rows of solid iron rings and rings with the ends flattened and riveted, as also found in ringmail from Vimose. The Thorsbjerg specimen, closed at the breast by clasps, has some rings placed at the vulnerable shoulder-blades and armpits made of copper alloy and showing embossed talismanic characters. Strikingly, it is embellished with two rolled copper-alloy pectoral discs. These wide plates, of both ornamental and defensive purpose, are 13.2cm (5.2in) in diameter, recalling more elaborate Roman *phalerae*; they are not firmly fixed down to the mail all around, but riveted on to hang free. The mailshirts used by the Roman Army became longer, particularly from the 4th century, as a result of the influence of the heavy Sassanian cavalry.



The iron scale-armour horse trapper from Tower 19 at Dura Europos. See body text **page 54**, under (2), for detailed description. (Drawing by Andrea Salimbeti after rep. VI of Baur-Rostovtzeff)

Three-quarter front view of the iron-scale horse trapper from Dura Europos, described in the text as (2). The pale interior visible here is part of the form on which it is displayed, not the original backing fabric. (Yale University Museum/Public domain)

A long 'splint-armour' gauntlet with metal staves had already begun to appear in the Roman Army as early as the 3rd century AD; of Iranian origin, it was typical of Eurasian horse peoples. Protection for the often-vulnerable upper thighs was important for cavalrymen. A very rare early example was found at Gamala, dated to the 1st century BC. It is described by Guy Siebel as curved, 30cm (11.8in) long, of plates ranging from 4 to 5cm wide (1.6–1.9in), and 2 to 3mm thick; leather straps on the back were fastened to the iron plates with copper-alloy rivets. In the East the thigh guard was evidently in use during the Late Roman period; the lower end of a thigh-guard of an iron laminated armour was found in the necropolis of Dura Europos, and two leather lamellar examples were uncovered in the collapsed Tower 19. Such protection is confirmed by literary descriptions and iconography. From Dura we get the impression that such leg-guards were more often worn overlapping upwards than downwards.

G THE WEST, 5th CENTURY AD

(1) *Catafractarius* of the *Comites Alani*; Mediolanum, Gallia, AD 430
The cavalryman is reconstructed from Romano-Sarmatian archaeology in Gallia and northern Italia, also incorporating elements from Pontic finds. These units served under the Magister Militum in Italy, according to the *Notitia Dignitatum*, which gives us their shield blazon. The man is armoured with bronze *squamae* of Roman typology, and armed with the *contus* and long Pontic sword; a specimen of the latter is decorated in the cloisonné style of Constantinople *fabrica*. Hidden here on the far side of his saddlery is a composite bow and quiver of arrows. The Alani reportedly used the flayed skins of their slain enemies to make horse trappers, and the faces were hung from the horse's *antilena*. This rider is using the new type of nomad-style saddle with raised saddlebows front and rear in place of the old four pommels.
(2) *Clibanarius* of Galla Placidia's *buccellarii*, c. AD 425–450
Bucellarii were personal units raised by an individual rather than the state; the politically active Galla Placidia was the daughter of Theodosius I (r. 379–395), and acted as regent for Valentinian III from 423 to 437. The cavalryman is largely copied from the mosaics in Santa Maria Maggiore. Besides a cuirass of iron *lamellae* he wears an early example of 'splint' armour on his

exposed right arm; similar armour has been found in Abkhazian graves of the 5th century, where warriors were buried with Eastern Roman military equipment. Such specimens have long splints on the outer arm and shorter ones partially covering the inside, over a leather support fastened with buckles; below them and attached by two large rings are hand-protectors of ringmail. Padded leg protection of felt and coarse silk covers the legs down to the shoes, fastened behind with laces and buckled straps.

(3) *Clibanarius* of *Equites clibanarii*; Cirta, AD 400

This trooper is equipped for training. A mosaic at Cirta (Constantine, Algeria) shows cavalrymen of the Western Empire training with javelins and riding caparisoned horses (see Osprey Campaigns 84, *Adrianople AD 378*, p. 68). Man and horse are protected with quilted armour of an organic material, in the rider's case probably corresponding to the *thoracomacus* worn under the heavy armour of the *clibanarius*. The *vestitus equi* of his mount may, by contrast, be actual war gear, comparable to those represented on the lost Column of Arcadius and Theodosius. If made with felt padding this kind of caparison would give protection against low-velocity, long-range missiles.

4th–5th centuries AD

The images at Dura still seem to fit well with the 4th-century description by Emperor Julian in his oration for Constantius II (Jul. Imp., *Or*. *in Const*. *laudem*, I, 37 ff):

'Your cavalry were almost unlimited in numbers and they all sat their horses like statues, while their limbs were fitted with armour that closely followed the human shape. It covers the arms from wrist to elbow and thence to the shoulder, while a plated armour (*θωραξ έκ τμηματων*) protects the breast, back and shoulders. The head and face are covered by a metal helmet forming a unit with a mask (*κρανος αυτω προσωπω*), which makes its wearer look like a glittering statue, for not even the thighs and legs and the very ends of the feet lack this armour. It is attached to the cuirass by fine chain-armour like a web, so that no part of the body is visible and uncovered, for this woven covering protects the hands as well, and is so flexible that the wearers can bend even their fingers.'

Nazanzius writes of *operti ferro exercitus* ('an army covered with iron'). The armour of these heavy cavalrymen might be silvered and gilded, giving riders and horses a splendid appearance. Describing the cataphracts of the Eastern Roman army at the beginning of the 5th century, Claudianus

(*In Ruf*. II, 357 ff) writes – probably of the Scholae Palatinae: 'Over against them the cavalry seeks to restrain their eager steeds by holding tight the reins. Here nod the savage waving plumes, whose wearers rejoice to shake the flashing colours of their shoulder-armour. Steel clothes them and gives them their shape; the limbs within give life to the armour's pliant scales so artfully conjoined, and strike terror into the beholder'. Gilded mail, probably combined with gilded plates and scales (*aurato dorso*), seems to be the main protection of Honorius' cataphracts (*viri ferrati*) according to Claudianus (*De VI Cons*. *Hon*. – '*chalybe indutos equites*'). Such armours belonging to the Imperial Guard were decorated with red silk ribbons at the shoulders (*per armos rubra sub aurato crispentur serica dorso*).

The use of 'muscled' metal armour by *clibanarii* was also usual among Sassanian elites, so it is not strange to find this element of the Greco-Roman military tradition in use by Roman heavy cavalry. It is worn by the officer of *cataphractarii* represented on a bronze *balteus* fitting from Trecenta (see **pages 33-34**), and in the frescoes of the Via Latina catacombs. This cuirass might most readily be associated with high-ranking officers or with the Imperial Guard, as seems to be confirmed by fragments and drawings of the Column of Arcadius and Theodosius, and even by miniature illustrations in the *Notitia Dignitatum*.

Although we only have copies of this document executed in the Middle Ages and later, its miniatures (Or. XI, 2; Occ. IX, 2) represent the equipment of the Imperial Guard super-heavy cavalry, especially of the Scholae Palatinae, whose shield blazons are associated with the pictured arms and armours – breastplates, arm-guards, thigh and leg-guards, as well as helmets and long *contarii*. A ringmail garment to protect the breast and hips is illustrated, with a triangular cutaway at the front to allow sitting on a horse. Other cataphracts may have been covered with ringmail from neck to feet. According to Sidonius Appollinaris (*Carm*., II, 142–143), the future Emperor Anthemius burdened his horse *cum pondere conti indutas Chalybum … catenas* ('with all his weight of steel chain-armour and heavy lance' – 'chain-armour' being the translation in the Loeb edition).

Some other heavy cavalrymen illustrated in the Via Latina catacomb frescoes are protected by scale armour worn over a leather doublet. Scale armour for the 4th and 5th centuries is confirmed by tombstones (stelae of Maxantius, Klaudianus [*sic*] Ingenuus), and mosaics (Santa Maria Maggiore). We also have a description of the future Emperor Majorian when he was an aide to the general Aëtius (Sidonius Apollinaris, *Carm*., V, 199). After a battle against the Franks, Majorian is described as having

worn a helmet and scale cuirass (*Carm*. V, 221–224). Sidonius also writes of Avitus, the future Augustus of the West, ‘wearing his scale-armour (*squameus*), his face still bearing the mark of the burnished helmet’ (*Carm*. VII, 242–243). No less important is the description from Sidonius of a Late Empire general girt for war (*Carm*. VII, 260–266): ‘They bring him his corselet, still clotted with gore, his lance blunted by wounds dealt to the barbarians, and his sword notched by unceasing slaughter. He cases his legs in greaves, and puts upon his head a gleaming helmet, whereon a golden crest-base rises aloft, catching an angry flash from on high.’ All the generals and emperors are described by Sidonius as using heavy cavalry equipment; note in particular the references to a lance (*contus*) and greaves. Sidonius had introduced the ‘cuirass still clotted with gore’ a few lines earlier (*Carm*. VII, 242) specifically as a *lorica squamata* (St Hieronymus, *Vulgata*, cap. XVII, 5, p. 85).

Fragment from an edge of mid 3rd-century iron-scale horse trapper with leather backing and lacing, from Tower 19 at Dura Europos. (Yale University Museum/Public domain)

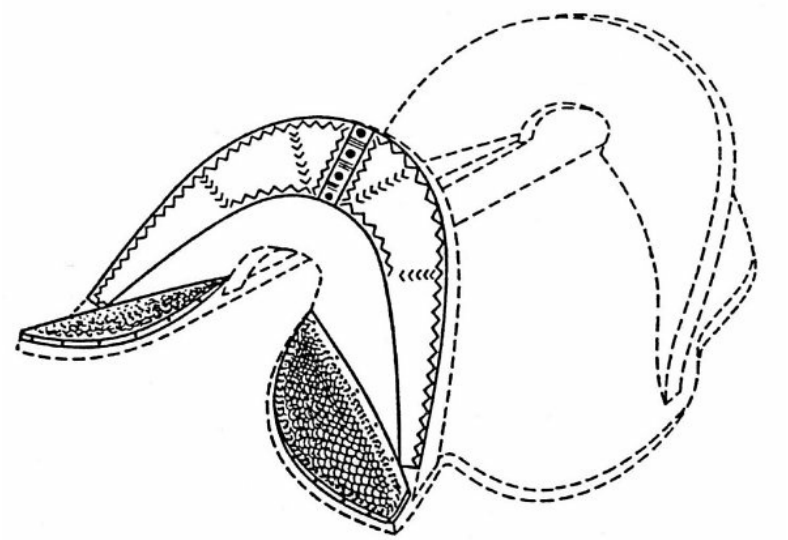
Fragment of possible horse trapper from Dura Europos, c. AD 256. This appears to be part of the leather border of an iron-scale horse armour – note the dagged edge, similar to that in the previous photo. However, the excavators felt unable to absolutely exclude the possibility that it was from a man's armour. (Yale University Museum/Public domain)

HORSE ARMOUR

The use of horse armour by cavalrymen was not a new concept for the Romans. It is clearly recorded by Virgil (*Aen*., XI, 770): 'But it soon befell that Chloreus, once a priest of Cybele, shone forth in far-resplendent Phrygian arms, and urged a foaming steed, which wore a robe o'erwrought with feathery scales (*plumam squamis*) of bronze and gold'. The horse's body was covered by heavy armour (*munitus equus*, Prop., *El*., IV, 3), and Virgil might well have based his description on some Eastern cataphract ally of Rome. The grammarian Maurus Servius Honoratus (4th–5th century), in his commentaries on this passage of the Aeneid (*Aen*. xi. 768 ff), says that the Latin expression meant that the horse was *catafractum*, i.e. armoured, and adds that *catafracti* are cavalrymen (*equites*) covered by iron (*ferro muniti*) and that they have horses protected in a similar way (*equos similiter munitos habent*). In his description of the 4th-century *clibanarii* of Maxentius, Nazianzius (*Pan*., XXII, 5ff) writes of 'an armour (*lorica*) which extends down to the horses' chest (*pectora equorum*) and hangs to their forelegs, protect[ing] them from … injury … without impeding their gait'.

The soldier-author Arrian (*c*. AD 86–160), in his *Ars Tactica* IV, describes the cataphracts of his period in precise terms: 'As for the equipment of the cavalry, it is [either] armoured (κατάφρακτος) or not; and in the armoured [cavalry] the horses and horsemen are covered, the men with armours made of scales or of linen or leather (θώραξι φολιδωτοῖς ἢ λινοῖς ἢ ἐκ κεράτων), and thigh protection (παραμηριδίοις), the horses with side and head protections' (παραπλευριδίοις. Προμετωπιδίοις). Despite the reservations of some scholars, the use of horse armour by early

Sarmatian and Roman cataphracts cannot be denied. Apart from indications in later sources that the Sarmatians used horse armour (Valerius Flaccus, *Argon*., VI, 231–234), the horses of the cataphracts shown on Trajan's Column are clearly protected by scale armour.



Wooden-framed saddle with raised front, 5th century AD. In the second half of the 4th century and particularly in the 5th century a new form of saddle, with a wooden frame and quilted padding of organic material, was gradually adopted by Roman cavalry. Probably copied from Hunnic models, it remained in use beyond the end of this period. (Drawing by Andrea Salimbeti ex Kazanski)

A certain number of finds from Sarmatian barrows are essentially identical to the armour of the Rhoxolani cataphracts on the Column. Finds are sometimes hard to interpret with any accuracy, but what are presumed to be several mail and scale horse armours, though corroded into uncertain shapes, were found in barrows near Yaroslavskaya stanitsa and Elisavetinskaya stanitsa, and in a barrow at the Kalinovsky burial-ground. If some Sarmatian and early Roman protective horse trappers were also made from leather scales, which seems probable, that would explain the dearth of convincing finds. Besides, horse armour was not in widespread use; all the existing funerary monuments of Roman *catafractarii* show the man on an unarmoured horse. Eye-protectors are visible on the horses on both Trajan's Column and the Chiusi Frieze, however, and are confirmed by many bronze archaeological specimens.

Heavy 4th−5th century AD double-curved bit from the harness of a cataphract, found in the Balkans. (European private collection; photo R D'Amato, courtesy of the owner)

The use of mail for horse armour and for the man is expressly confirmed in the above-mentioned passage by Valerius Flaccus, who describes Sarmatian riders' cuirasses and horse-armour made of *catenae*. The word *catena* means 'chain', so this surely can only refer to ringmail: *cum saeuior ecce iuuentus Sarmaticae coiere manus fremitus que uirorum semiferi; riget his molli lorica catena id quoque tegmen equis* ('… the soft mail armour, which is also covering the horse'). The historian and experimental archaeologist Dr Marcus Junkelmann basically agrees that horse armour was used, while insisting on the limits imposed by what a horse could accept. Moreover, as already seen, it was not universally employed, but only by some 'super-heavy' units of *clibanarii.*

The protection of the horse (*armatura*) was sometimes complete, comprising defences for the head (*prometopidia*, chamfron), the neck and the body. The Greek terms for the various elements are listed in the 2nd century AD by Pollux, in his *Onomasticon* (I, 140–141): προμετωπίδιον (protection of the head), παρώπιον (eye-protectors), παρήϊον (cheek-pieces), προστερνίδιον (covering for the breast), παραπλευρίδιον (protection of the flanks), παραμηρίδιον (covering for the thighs), and even παρακνημίδιον (covering for the legs).

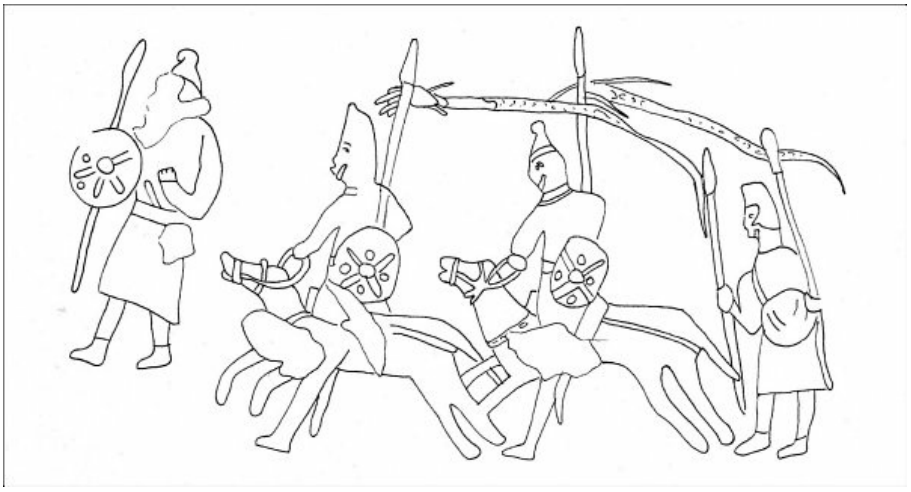
The Dura Europos finds

The most striking archaeological evidence for 3rd-century horse armour comes from the Roman fort of Dura Europos. The finds of two complete and three fragmentary horse trappers in Tower 19 confirm that the garrison included auxiliary heavy cavalry equipped as cataphracts. Many scholars

identify the graffiti of cavalrymen on armoured horses as Parthians (who had once occupied the fort) or Sassanians, but we should remember that auxiliary *cunei* and *numeri* fought in the Roman Army with their personal equipment, and that a *Numerus Palmyrenorum* was part of the Dura garrison. In the East the Roman military are known to have used Iranian dress and accoutrements, which were typical of the army's Arabo-Hellenic troopers in the Fertile Crescent.

In the Dura graffiti horse archers are represented on armoured horses, and some of them wear spangenhelms. The famous graffito of the *clibanarius* shows his horse covered by a scale trapper, exactly as found in the AD 256 levels in Tower 19. A small *phalera* or disc characterizes the horse's *antilena*, as also attested in Parthian sculptures of the period. The three main specimens of horse trappers are as follows; for (1) and (2), see illustrations on **pages 44** and **45**:

Standards: Roman heavy cavalry attacking Sassanians, from the Arch of Galerius, *c*. 298−299. Although very damaged, this carving reveals three differing *draco* standard heads. Under close examination, the troopers can be seen to wear scale armour and both the ridge-helmet and the framed *spangenhelm*, and some horses show traces of neck armour. (*in situ*, Thessaloniki; photo R. D'Amato)



‘Passage of the Red Sea by the Army of Pharaoh’ in a fresco from the Chapel of the Exodus, Al-Bagawat; Kharga Oasis, Egypt, 5th century AD. Note the *draco* standards carried by the riders; it is not impossible that the artist also intended to depict mask helmets, in contrast to the headgear worn by the foot soldiers. (Drawing by Andrea Salimbeti ex Fakhry, 1951)

(1) This complete trapper is almost rectangular, 1.22m long by 1.69m wide (48 x 66in). It is made of bronze (copper-alloy) scales, on two side-panels linked together by a central leather strip, with a triangular tail-piece. The backing is a double layer of coarse linen. The scales average 35mm (1.4in) long, with rounded bottom corners, and are pierced with eight holes – two on either side, and four arranged in a square at the top. They are linked with copper-alloy wire through the side holes, to overlap laterally, and sewn to the backing with thread cross-stitched through the top holes, to overlap vertically. The top-row scales on each side panel have a larger additional hole through which they are laced with rawhide thongs to the double-layered, red-leather central strip. This central strip is 22cm wide in front of the saddle-hole and 14cm wide behind it (8.7 and 5.5in). The red-leather bottom edges of the side panels are 85mm (3.3in) wide; and the saddle-hole is edged all round with fine red leather, folded over and sewn.

The tail-piece is attached by a leather loop at the centre, and at the corners by a continuation of the rawhide lace which runs up each rear edge of the main panels. It bears 11 rows of scales linked laterally, sewn on the same cloth backing, and has red leather edging.

Red leather laces pass through the side panels near the front and rear corners, one still being 33cm (13in) long. Two rawhide laces, braided together and threaded through a small copper-alloy ring, pass up through the central strip just behind the saddle-hole, and two more braided loops passing through the scales out to either side probably passed over the rear pommels of the typical Romano-Celtic ‘four-horn’ saddle. About 22cm (8.7in) in from the rear end of the central strip is another loop of rawhide, the ends passing up through a round wooden button and then through a transverse rawhide strip originally 70cm (27.5in) long.

Important additional finds were probable fragments of a neck defence, according to James. These included pieces of red leather edging, and copper-alloy scales averaging 36mm by 25mm (1.4 x 0.99in). The scales were linked laterally with wire through pairs of holes, and sewn through four top holes to the linen backing in prefabricated horizontal rows, which were overlapped vertically, and offset laterally by about one-third of their width.

(2) The second trapper, covered with iron scales, also differs in being made all in one piece and simply strengthened with a strip of scarlet leather down the centre, from which the rows of scales overlap downwards on either side. It measures 1.48m long by 1.1m wide (58.27 x 43.3in), with two curving extensions 16cm (6.3in) long at the front corners; a surviving thong shows that these were fastened together on the horse's chest. The backing is a single thickness of coarse hessian/burlap cloth. This was first bound with red leather edging; then the backing and scales were rebound with untanned leather, which passed under the lower two rows of scales. The iron scales, again rounded at the bottom corners, average 6cm long by 4.5cm wide (2.36 x 1.8in), and are 4mm thick. Again, they have eight fastening holes, with copper-alloy staples linking them laterally and fine rawhide stitching onto the backing through the top four holes.

The panels of 19 rows of overlapping scales are rounded off at the rear on each side, where a fine red leather laced edging attaches two triangular pieces of untanned red leather to complete the rectangular shape. The central strip is 15cm (6in) wide, of the same heavy, untanned red leather, and is laced to the top row of scales on each side with rawhide. At each end, and around the saddle-hole, it has fine folded-over red leather edging. The triangular tail-piece – at 21.5cm (8.4in) on a side, shorter than that on trapper (1) – is crudely made, with four unevenly overlapping rows of scales laced with rawhide to a backing of untanned leather.

H THE EAST, 5th CENTURY AD

(1) *Cataphractarius* of *Schola scutariorum secunda* or *Schola armaturarum seniorum*, AD 400
The fragments of the lost Column of Arcadius and Theodosius, and the Renaissance-period Freshfields drawings of it, show the lavish equipment of Eastern Roman cavalrymen of the Imperial Guard. Shield blazons engraved on the Column pedestal confirm the presence of the cavalry *Scholae Palatinae* and *Domestici Protectores* on the battlefield, armoured with 'muscle' cuirasses in metal or leather, and laminated limb armour over ringmail. Claudianus describes the Eastern Roman cataphracts wearing helmets with peacock-feather plumes, and wide red sashes around the body, as signs of their status or unit. Masked helmets with human faces (*personati*) were still employed by cavalrymen, often decorated in red leather; the Column shows the use of both male and female masks. This last example in Roman art of the use of masked helmets in battle is confirmed by the almost contemporary specimen from Sisak. The written sources also mention units of heavily armoured mounted archers, anticipating the further evolution of the Roman heavy cavalry in the 6th century.
(2) *Catafractarius* of the *Equites catafractarii Albigenses*, AD 400–425

This man is reconstructed from the grave of a cavalryman found on a Balkan battlefield with all his armour. Besides a ridge-helmet, he is protected by a ringmail *lorikion*, laminated armour on his arms, and thigh protection above his greaves. Apart from the *contus*, he is armed with a long *spatha.*

(3) *Leontoclibanarius*; Aegyptus, AD 450–500

This Egyptian cavalryman has a helmet of Romano-Sassanian style, fitted with a mail hood aventail which leaves only the eyes uncovered. He wears on his neck and upper breast an early example of scale *peritrachìlion*, and below this his trunk is covered with a combination of ringmail and scales recalling Iranian styles. Again, his limbs are protected by articulated plates. His weapons again include a battleaxe. Dtinsis (see Bibliography, under Diethart) suggests that the unit's symbol was a leonine motif which the *Notitia Dignitatum* shows, perhaps on a small *cheiroskoutarion* shield. The horse's neck and forequarters only are armoured partly with bronze scales and partly with padded material (*κέντουκλον*). Note the chamfron in felt with metallic appliqué, copied from a unique specimen in the Berlin Museum.

(3) The third armour was formed from 2,000 scales of yellow copper alloy, on linen edged with leather; all the laces are in red leather, and rows overlap in both directions. Most scales are from 2.5 to 4cm (0.98 to 1.6in) long; all have two holes on either side, but only a few have a four-hole square at the top for stitching, the majority having instead a single large hole for a rawhide lace. The top corners are sometimes clipped off to reduce chafing of the laces, and the scales tend to be slightly domed at the bottom. Other small copper-alloy scales formed the protection of the neck: 3cm long by 1.5cm wide (1.2 x 0.6in), these have the lower corners bevelled, and are pierced with six holes – two on either side and two at the top. There were also two large fragments of an upper edge, with scales, backing and red-leather edging laced on with rawhide; one of the fragments shows an obtuse upper corner of about 45 degrees.

Literary sources

The descriptions of cataphracts by authors of Late Antiquity leave no doubt as to the employment of horse armour (*vestitus equis*), at least by the *clibanarii*. Nazanzius, in his Panegyric to Constantine, describes the army of Maxentius at the battle of Turin: 'What a spectacle that is said to have

been, how dreadful to behold, [with] horses and men alike enclosed in a covering of iron (*operimento ferri*)'.

In the above-mentioned passage by Claudianus describing the army in Constantinople, he writes of the horses of the *cataphractarii:* 'their heads are encased in threatening iron (*ferrata fronte… minantur*), their forequarters move beneath iron plates (*ferratos armos*) protecting them from wounds'. The same author describes the Imperial Guard cataphracts of Honorius (*Pan*. *De II Cons*. *Hon*., 569 ff): *latentes in aere cornipedes* ('horses clad in bronze'), and *metallo nascentes equos* ('steeds of metal'). The employment of bronze (copper alloy) for horse armour is attested, as we have seen, by the finds at Dura Europos.

'The Passage of the Red Sea', in a 5th-century mosaic from the right nave of the church of Santa Maria Maggiore, Rome. In the right background are cataphracts wearing scale armour, and, strikingly, helmets recalling the old-fashioned Vechten and Vienne typology. (*in situ*, Rome; ex Wilpert, 1903/Public domain)

Horse armour received its greatest impulse under Constantius II, according to Libanius: 'Nevertheless this prince, so abounding in resources, the possessor of innumerable and splendid cities, in receipt of

those vast tributes, he that was drawing that immense amount of gold from his mines, he who clad the bodies of his cavalry in steel with greater care than the Persians themselves, who protected from wounds the very horses by means of armour…'

Where horse armour was employed, it only sometimes gave complete protection, and otherwise (perhaps more usually) was only partial, protecting vital areas. Authors such as Harl and Junkelmann point out that such armouring was only possible within the limits of sustainable weight for the horse. In the Late Empire the gravestones and other representations of *cataphractarii* always show horses unarmoured – e.g. the stelae of men of the *Equites cataphractarii Pictavenses* and *Ambianses*. Vegetius calls the cataphracts *equites loricati* (II, 15), but he does not mention horse armour. Perhaps the units of *cataphractarii* listed in the *Notitia Dignitatum*, as distinct from *clibanarii*, normally used no horse armour. This would correspond with the representations of heavy cavalry in the 4th-century catacombs of the Via Latina or in other biblical scenes, and with the limited number of armoured horses represented in the iconography of the 4th and 5th centuries.

Neither was the protection of the horse necessarily metallic. Fragments of leather horse chamfrons and pectorals decorated with nails have been found at Vindolanda, Newstead and Valkenburg in 1st-century AD layers. A mosaic from Constantine in Algeria (Cirta) shows cavalrymen wearing the *thoracomacus* training on caparisoned horses, but these have only partial metal protection; most are shown in trappers of what looks like leather, felt or other quilted or padded material. No less important are the surviving fragments and the Freshfield drawings relating to the Column of Arcadius and Theodosius in Constantinople: all the horses of heavy cavalrymen, senior officers, and of Theodosius himself are covered with elegant (and probably highly decorated) fabric caparisons.

Clothing, standards & flags

Under their heavy armour the cataphracts were dressed exactly like the other cavalrymen of their periods. The presence of caps like the 'pillbox' *pileus Pannonicus* is confirmed by the stelae of Zurdigenus and Fuscianus for the 3rd and 4th century. The tunic of cavalrymen was usually short and with long sleeves, confined at the waist by the *cingulum militiae*. In the Late Empire frescoes and mosaics show heavy cavalrymen's tunics in off-white, green and light blue, often decorated with embroidered appliqués visible at the wrists. *Paludamenta* and *sagia* cloaks are shown in red-

orange, medium brown, light purple or light blue, and *anaxyrida* (trousers), when visible, are off-white.

The main standard of these units was the 'windsock' *draco*, as attested by the iconography and confirmed by the written sources. Before Rome acquired heavy cavalry, similar standards were already in use among the Saka, Kushan, Parthian and Irano-Sarmatian cataphracts. The appearance in the Roman Army of this new type of standard was noted by sources during the reign of Hadrian, when it is mentioned as being used by Roman cavalrymen in tournaments (Arr., *Tact*. XXXV, 1–5). It is obvious that the appearance of these new standards was a consequence of contacts with the Iranian-speaking world. The heads of Dacian or Sarmatian examples shown on Trajan's Column actually appear to be canine in shape, but the iconographic and archaeological sources attest that in the Roman Army they were finally transformed into snake-like 'dragons'. There would have been a divergence in their detailed appearance from those in continuing use in the Iranian world.**2**

Dracones in the hands of heavy cavalrymen charging the Persians appear on the Arch of Galerius (dated 298–299, this commemorated his campaigns before he became Emperor in AD 304). The accuracy in many instances of the soldier-turned-historian Ammianus (XVI, 10, 7) invites confidence in his description of the *draco* standard in Constantius' triumphal parade through the streets of Rome in AD 357. Since this reference is linked with the presence of cataphracts beside the Emperor, it might confirm that the *draco* was the official standard of such units, or at least those of the Imperial Guard. In his *Res Gestae* Ammianus describes the shining gilded and purple *dracones*, encrusted with precious stones and with the waving body covered with costly silk, as the *cataphracti equites* pass in defile between two ranks of infantrymen of the *Cornuti*.

'The Passage of the Red Sea'; 5th-century mosaic from the side panels of Santa Maria Maggiore, Rome. Again, the mounted Pharaoh is followed by *buccellarii* equipped in Late Roman style, noticeable from the helmets. (*in situ, Rome*; ex Wilpert, 1903/Public domain)

Claudianus, in his description of Eastern cataphracts (*In Ruf*. II, 364–365) mentions 'particoloured dragons (*varii dracones*) sinking into repose with relaxing coils', and, for Western units, the presence of coloured dragons beside the cataphracts in the triumphal procession of Honorius (*De VI Cons*. *Hon*.). Interestingly, when trying to describe the sound of the wind passing through the dragon's head, the poet puts into the mouth of an imaginary girl witness the question: 'Do they … just wave in the air, or is theirs a veritable hiss, uttered as they are about to seize an enemy in their jaws?'

The iconography of the 4th and 5th century also supports their association with heavy cavalry. *Dracones* are illustrated in the hands of heavy cavalrymen in the 5th-century frescoes at the Kharga Oasis in Al-Bagawat, Egypt, perhaps representing one of the units of *katafraktarioi* stationed in Roman Aegyptus.

Note

2 See illustrations and reconstructions in Elite 221, *Roman Standards and Standard-Bearers (1): 112 BC – AD 192.*

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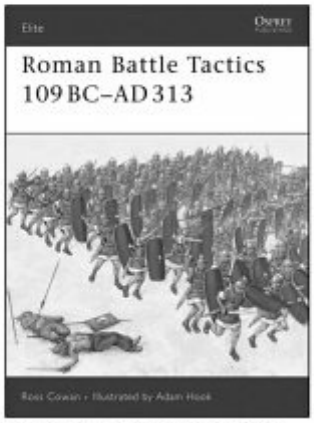

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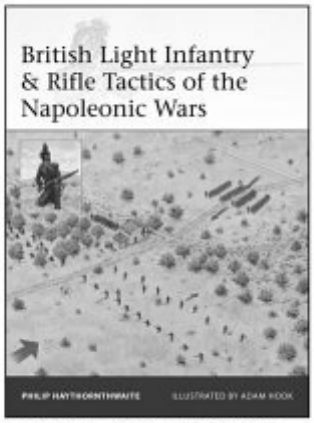

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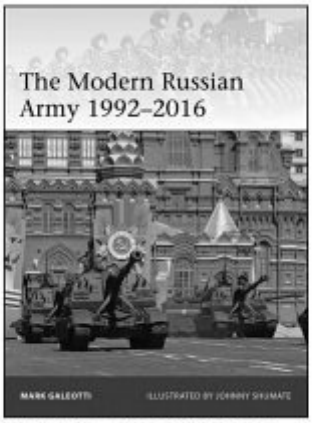

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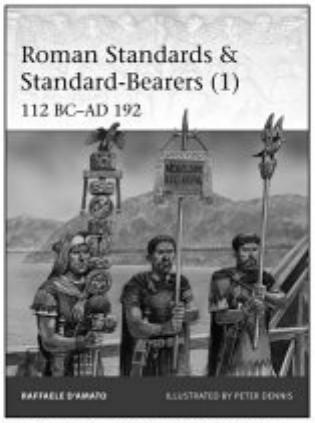

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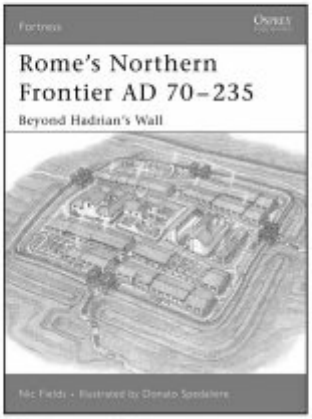

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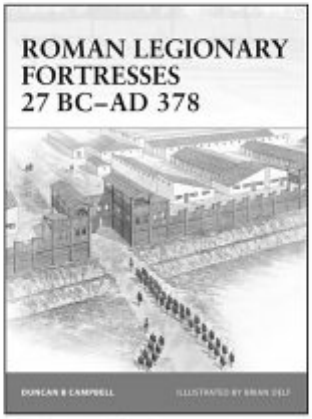

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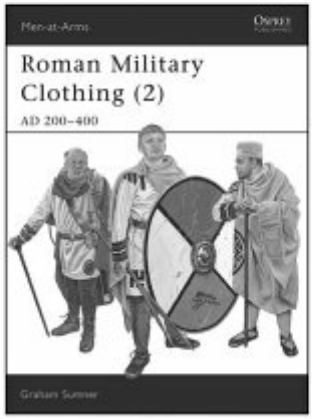

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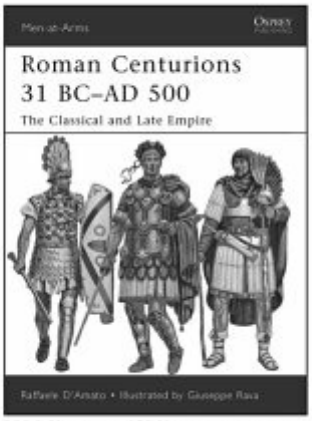

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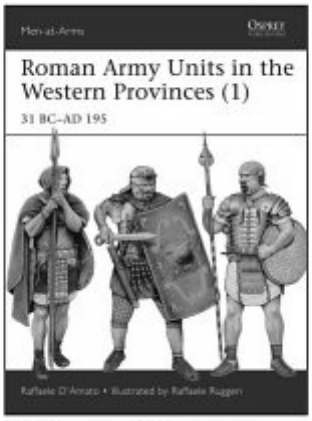

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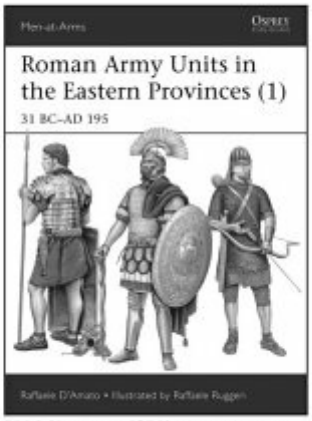

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Raffaele D'Amato, 2018

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